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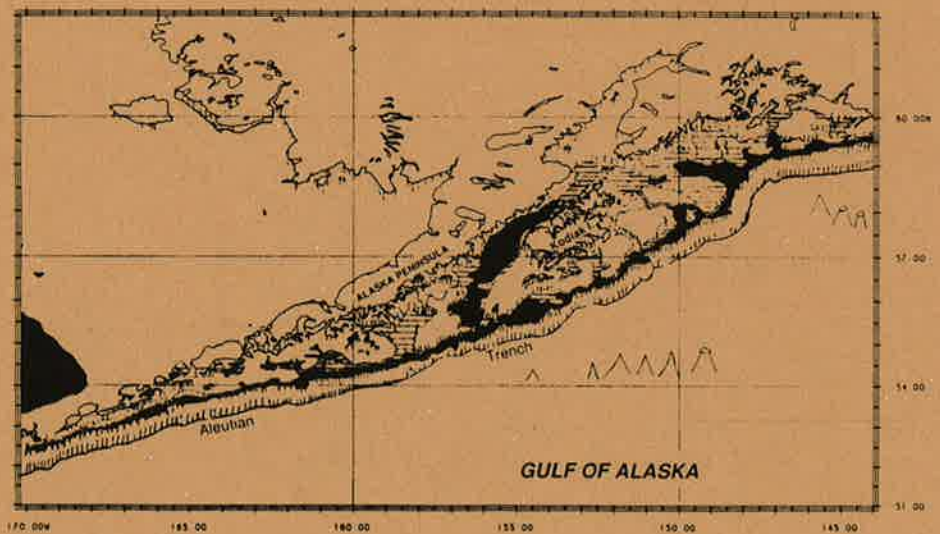
U.S. DEPARTMENT OF COMMERCE

AFSC PROCESSED REPORT 91-05

Report to Industry:

Results of the
1990 Cooperative Bottom Trawl Survey
of the Central and Western
Gulf of Alaska

February 1991



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Report to Industry: Results of the 1990
Cooperative Bottom Trawl Survey
of the Central and Western Gulf of Alaska

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INTRODUCTION

During the summer of 1990, the National Marine Fisheries Service's (NMFS), Alaska Fisheries Science Center (AFSC), Seattle, WA, completed the third triennial bottom trawl survey of groundfish resources in the western and central Gulf of Alaska (GOA). Survey operations were conducted by the AFSC's Seattle based Resource Assessment and Conservation Engineering Division (RACE). The eastern GOA was surveyed by the AFSC's Auke Bay Alaska Fisheries Laboratory (ABL) groundfish program^{1/}.

From 4 June - 9 September, 607 bottom trawl hauls were attempted between the Islands of Four Mountains (170°W long.) in the eastern Aleutian Islands and Cape St. Elias (144° 30'W long.) in the central GOA at depths ranging from 20-530 meters (m) (11-290 fathoms (fm)) (Figure 1). The purpose of this report is to provide pertinent information collected by the research vessels operating in the central and western GOA to the U.S. fishing industry.

METHODS

Vessels and Gear Characteristics

The two U.S. charter vessels, the 30.8 m Pat San Marie and 30.5 m Green Hope are both house-forward style commercial stern trawlers powered with 850 and 565 horsepower main engines respectively. Both vessels were equipped with dual hydraulic trawling winches and single net reels located over the stern ramp and forward on the working deck. The trawl cable measured 1,100 m (600 fm) on the Pat San Marie and 1,463 m (800 fm) on the Green Hope with respective diameters of 2.2 centimeters (cm) (7/8 inches (in)) and 1.91 cm (3/4 in). The electronic equipment used by each vessel included Loran C receivers, dual radars, auto-pilot, paper and color video fish finders and single side band and VHF radios.

^{1/}A report describing the fishing results of the 1990 triennial survey in the eastern Gulf of Alaska is available by contacting: Dr. George Snyder, NOAA, NMFS, Auke Bay Laboratory, P.O. Box 210155, Auke Bay, Alaska, 99821.

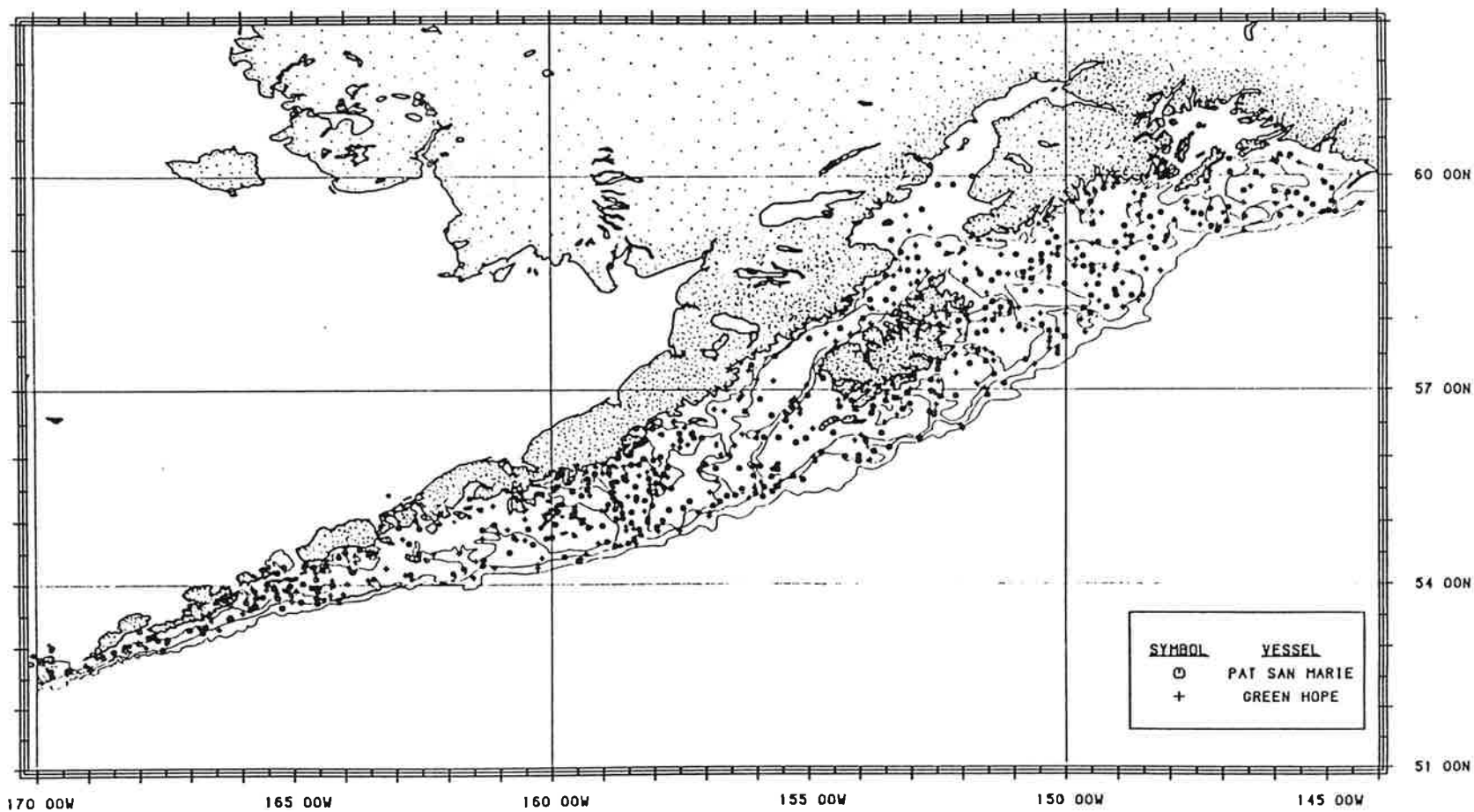


Figure 1. --Total survey stations attempted during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska, 4 June - 9 September, 1990.

All bottom trawling was conducted with four seam, high-opening polyethylene Noreastern trawls equipped with rubber bobbin roller gear (Appendix). This standard survey trawl has a 27.2 m headrope and 36.7 m footrope consisting of a 24.9 m center section with adjacent 5.9 m "flying wing" extensions. Accessory gear for the Noreastern trawl included 54.9 m triple dandy lines and 1.8 X 2.7 m (6 X 9 foot (ft)) steel V-doors weighing approximately 800 kilograms (kg) (1,800 pounds (lb)) each.

An acoustic net mensuration system consisting of a headrope unit and two wing units was used to measure the horizontal and vertical dimensions of the Noreastern trawl on each vessel. Trawl width generally increased with increasing depth. The wingspread of the Noreastern trawls used aboard the Pat San Marie and Green Hope averaged 15.7 m and 14.9 m respectively. Each vessel had an average towing speed of approximately 3 nautical miles per hour (nm/h).

Survey design and operations

The central and western Gulf of Alaska survey area was divided into 36 subareas based on bottom depth and geographical area (e.g. banks, gullies, flats, etc.). The allocation of available survey effort within each subarea was proportional to fish densities observed during the 1984 U.S.-Japan triennial survey. The uneven sampling distribution seen in Figure 1 is a result of assigning the highest sampling densities to subareas of highest expected fish abundance. Planned survey coverage was reduced (from the 1984 and 1987 coverage) to include only depths shallower than 500 m because substantially less vessel time was available in 1990, due primarily to the loss of Japanese participation. Fewer successful survey sampling tows were completed in 1990 (548) than during the 1987 (650) and 1984 (751) triennial surveys. The result of no sampling in depths deeper than 500 m was an inadequate assessment of deep water species including adult sablefish, shortspine thornyheads, Dover sole and grenadiers.

During survey operations, the first trawlable location encountered near the selected station was sampled. In choosing the exact location, only the bottom conditions indicated by the echo sounder were considered and not the presence or absence of fish sign. Each survey station was scheduled to be towed for one-half hour, however in cases where there was not enough trawlable bottom for a full one-half hour tow, shorter tows were completed. ²/Scanmar net sonde units were used to determine the on-bottom time and vertical and horizontal openings of the trawl gear.

²/Reference to trade names does not imply endorsement by the National Marine Fisheries Service, NOAA.

Catches weighing less than approximately 1,000 kg were completely sorted to species and weighed. Larger catches were sampled to obtain a representative portion of approximately 1,000 kg. The numbers of individuals for each species and length distributions for selected species were determined from the total catch or from random samples. Additional biological data, age structures and other special collections were also taken.

ORGANIZATION OF REPORT AND DATA STANDARDIZATIONS

This report focuses on the catch data collected at individual stations and includes information for the principal species encountered during the survey. Section 1 contains distribution and relative abundance charts based on the catches of selected species at successfully completed survey stations. The fishing results are presented in Section 2 for the Pat San Marie and Section 3 for the Green Hope. Each section has three parts: (1) station charts with haul numbers plotted adjacent to their respective geographical locations, (2) summary listings of species catches by haul, and (3) summary listings of catch rates in descending order of magnitude for selected species of commercial interest.

Explanations of the symbols and codes appearing in the fishing logs are summarized in Table 1.

The Appendix contains specifications (Table A1) and diagrams of the fishing gear used during the survey.

For further information regarding this survey contact:

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Table 1.-- Definitions of codes and symbols used in the fishing logs of the 1990 triennial bottom trawl survey.

Gear depth-	fathoms
Duration of tow-	tenths of an hour (standard tow is one-half hour)
Distance fished-	nautical miles
Gear performance-	<p>0 = satisfactory</p> <p>1 = satisfactory tow, net snagged bottom but damage and fish loss were minimal</p> <p>5 = unsatisfactory tow</p> <p>6 = unsatisfactory, net snagged bottom</p> <p>7 = unsatisfactory tow, torn net</p>
Gear type-	172 = polyethylene Noreastern bottom trawl with roller gear
Catch units-	<p>The distribution and abundance plots use catch per unit of effort in kilograms of catch per nautical mile trawled.</p> <p>The summary listings of species catches by haul are in kilograms. The summary listings of catch rates for selected species use kilograms of catch per nautical mile trawled, a 0.0 kg weight indicates a catch of less than 0.1 kg/nm.</p>

SECTION 1

Distribution and Relative Abundance Plots
for the major groundfish species taken
during the 1990 survey.

Summary of adjustments and standardizations to the data

■ Standardization of fishing effort:

The catch per unit effort at each station was standardized to a trawl width of 15 meters and calculated in units of kilograms of catch per nautical mile trawled (kg/nm).

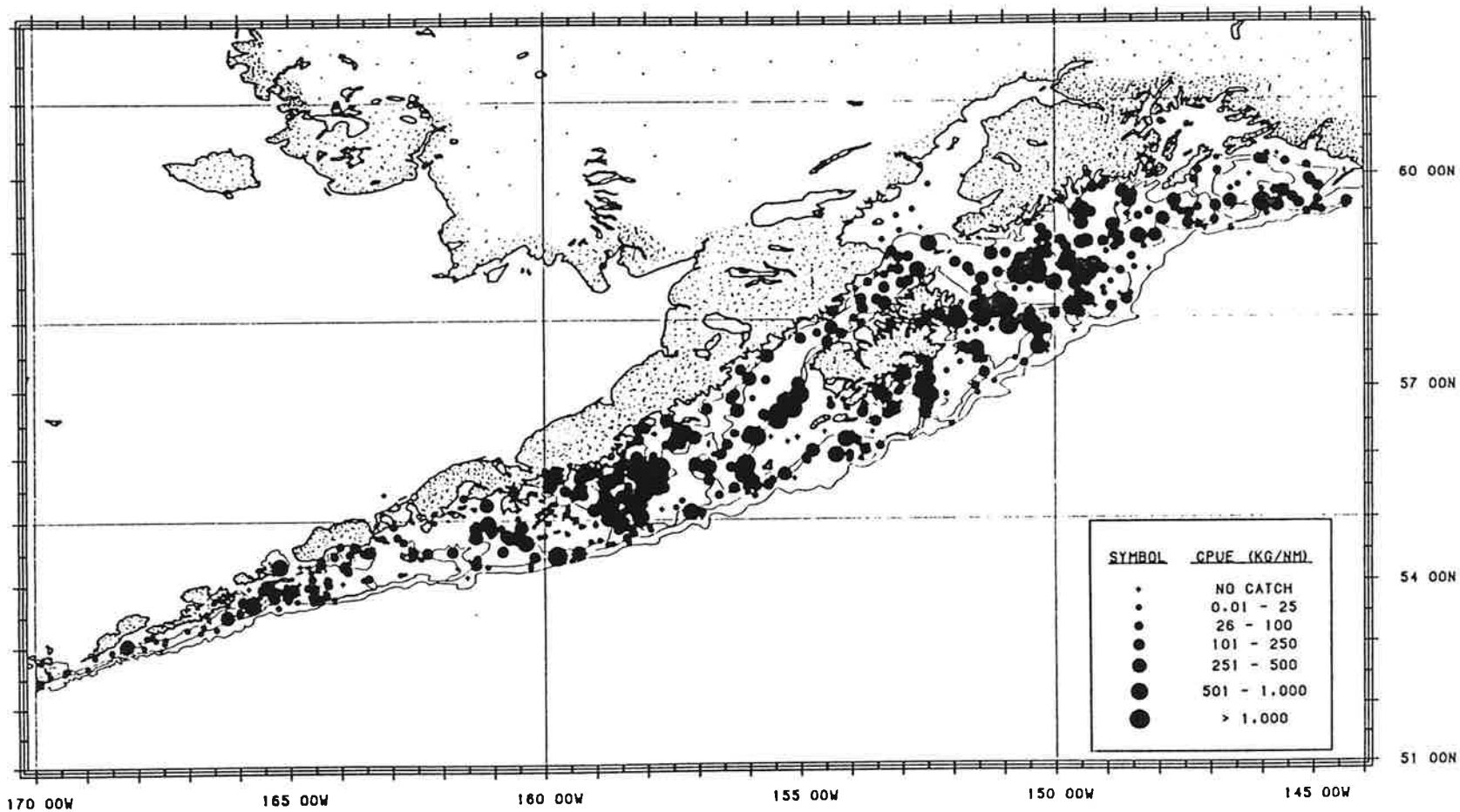


Figure 2. --Catch per unit effort (kilograms/nautical mile) of arrowtooth flounder, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

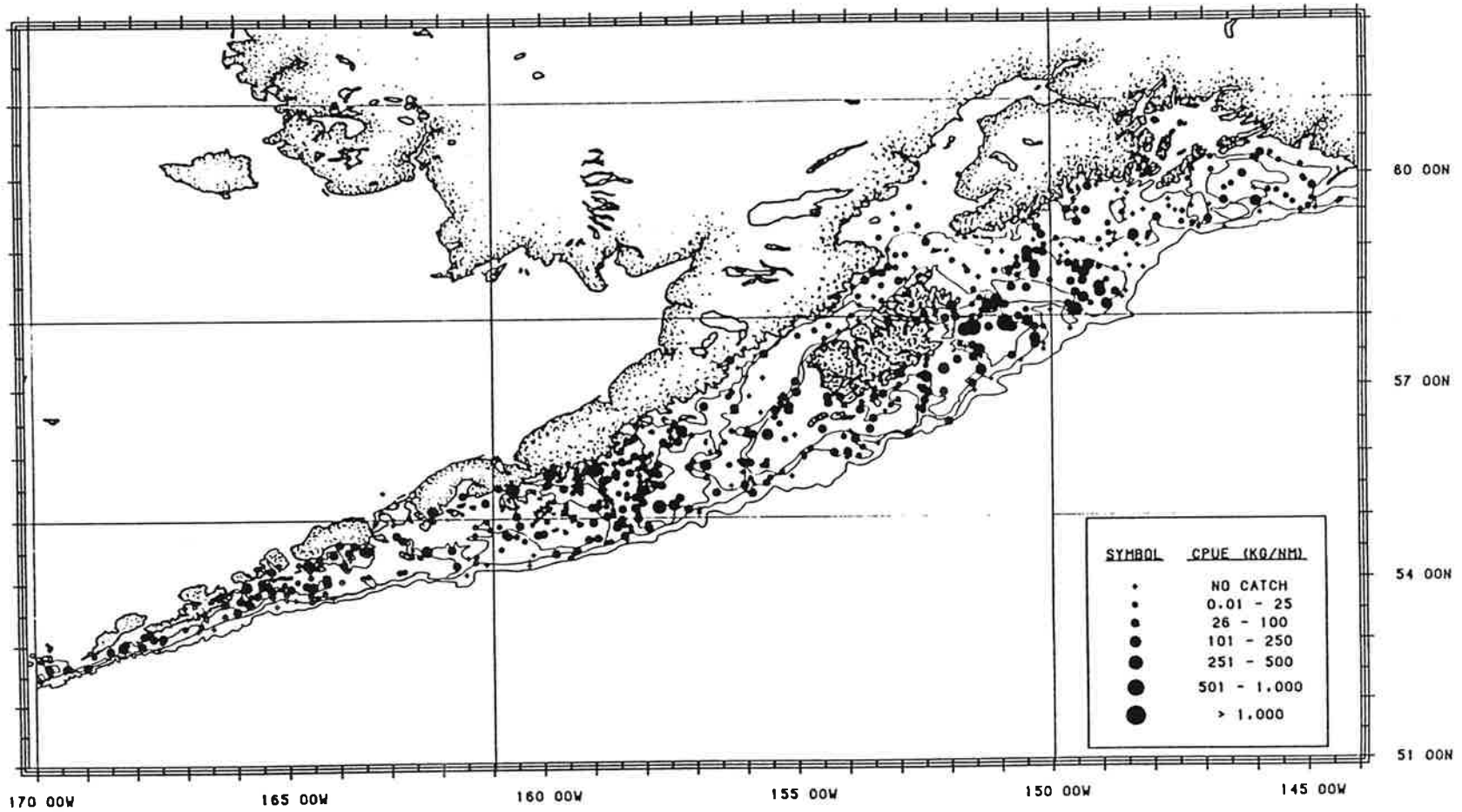


Figure 3.--Catch per unit effort (kilograms/nautical mile) of Pacific halibut, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

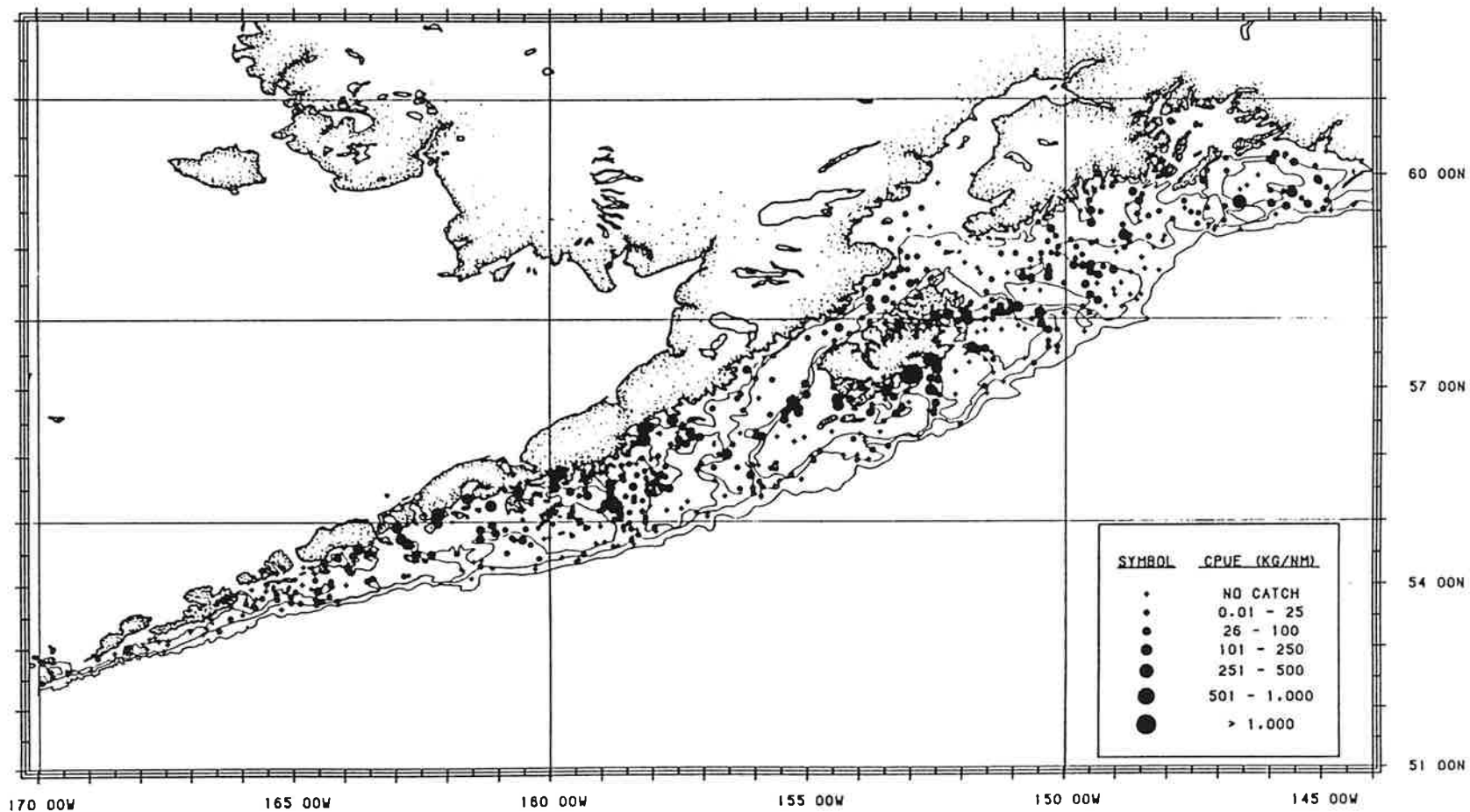


Figure 4.--Catch per unit effort (kilograms/nautical mile) flathead sole, during the 1990 bottom trawl survey of the central and western Gulf of Alaska.

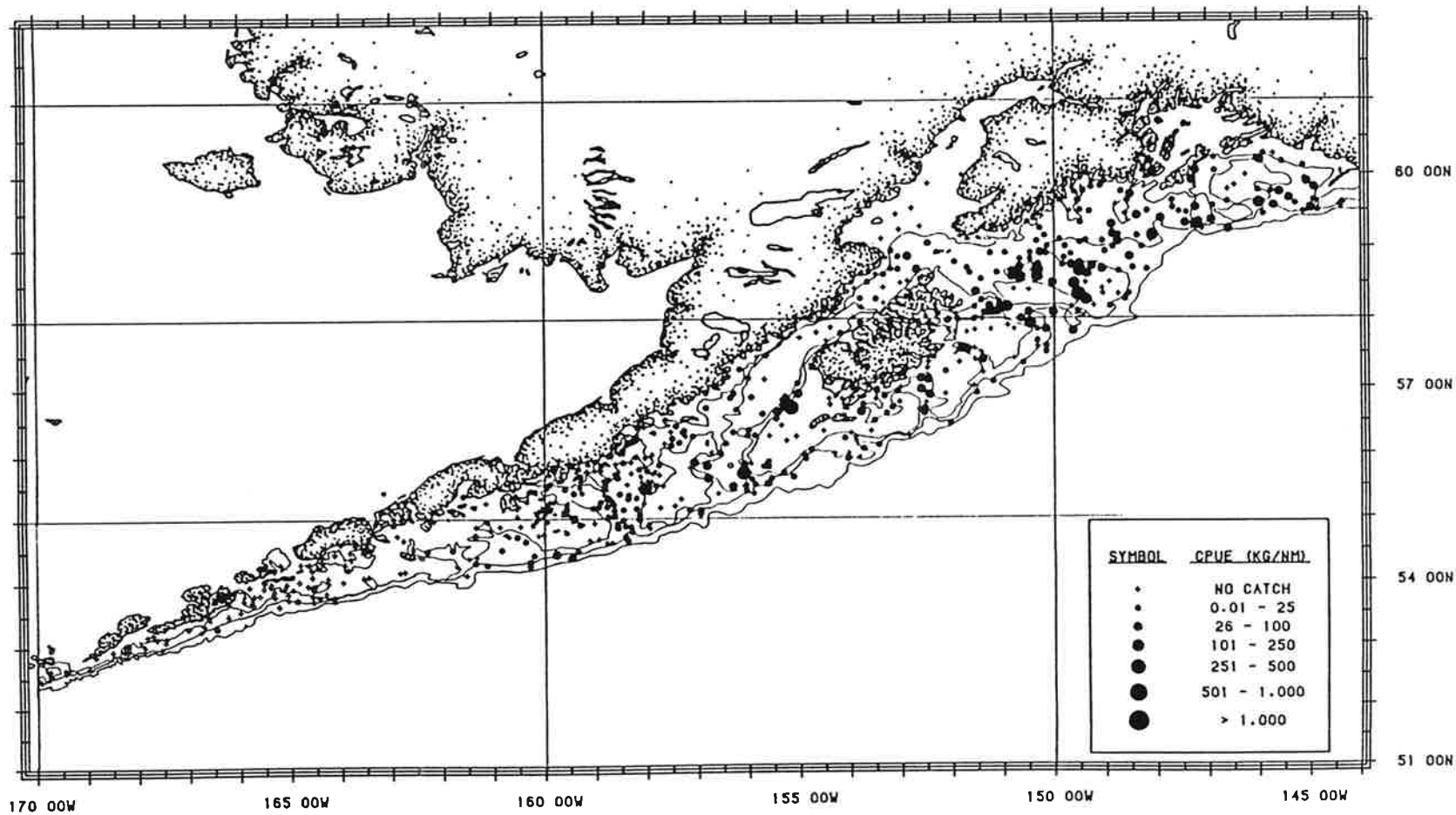


Figure 5. --Catch per unit effort (kilograms/nautical mile) of Dover sole, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

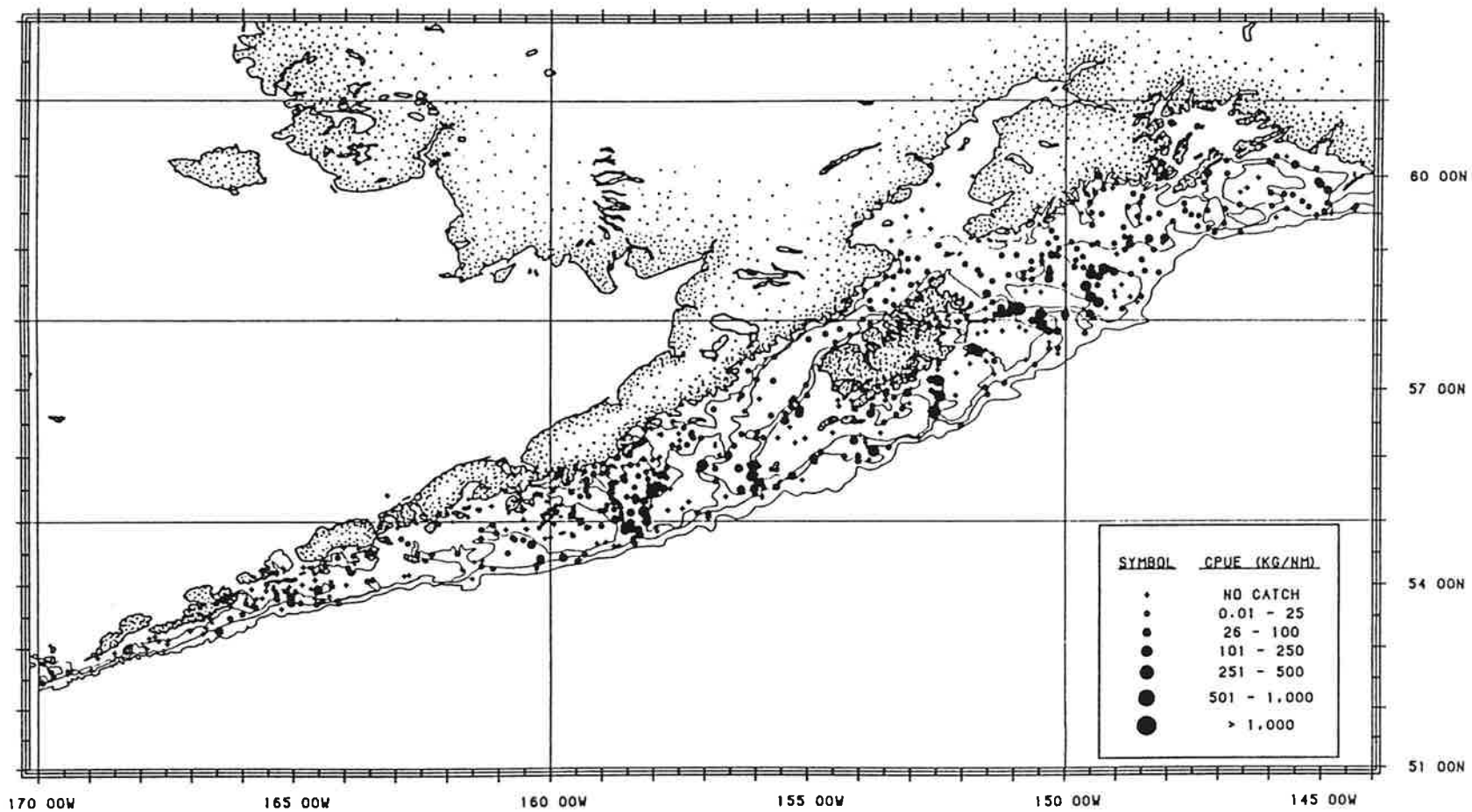


Figure 6. --Catch per unit effort (kilograms/nautical mile) of rex sole, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

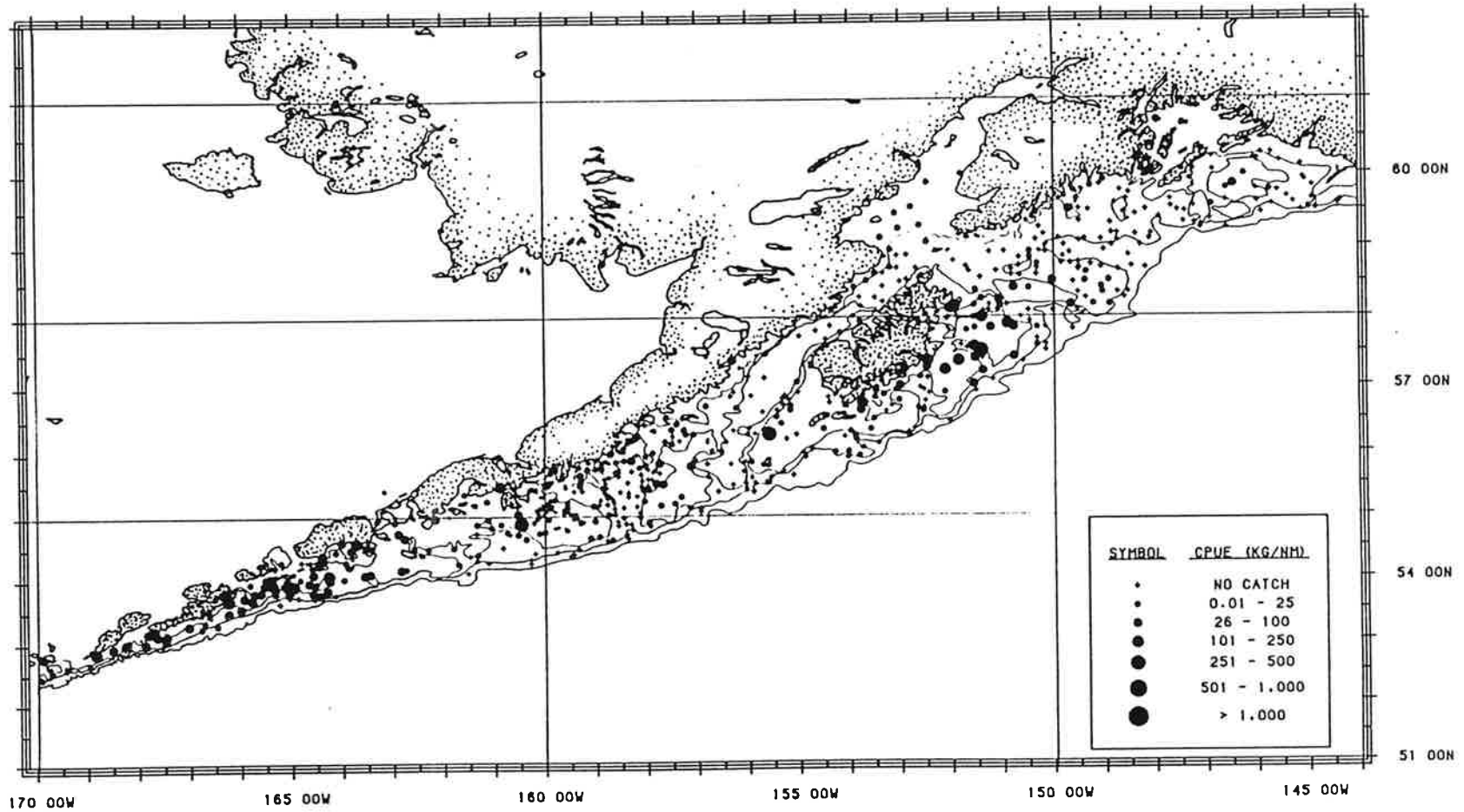


Figure 7. --Catch per unit effort (kilograms/nautical mile) of rock sole, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

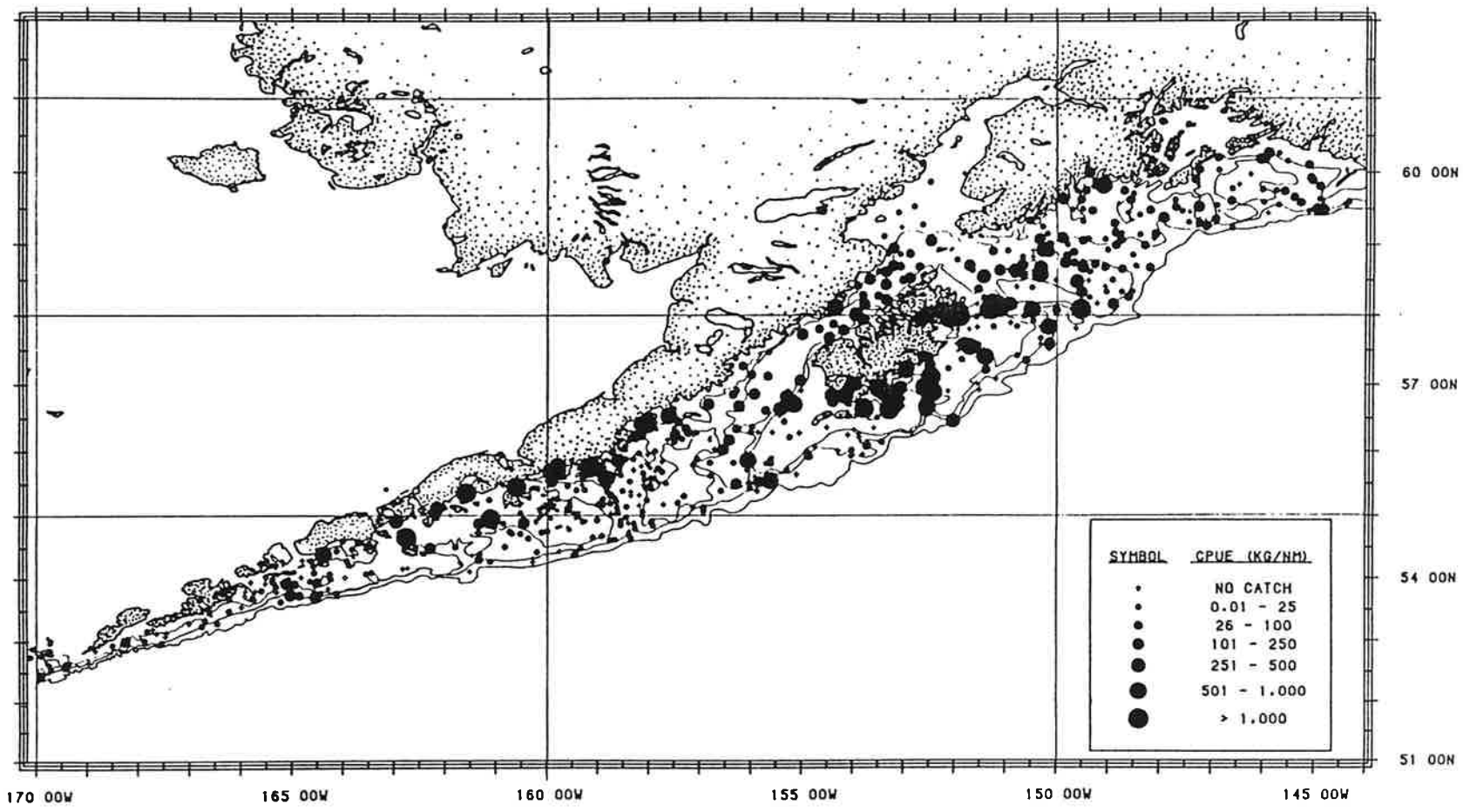


Figure 8. --Catch per unit effort (kilograms/nautical mile) of walleye pollock, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

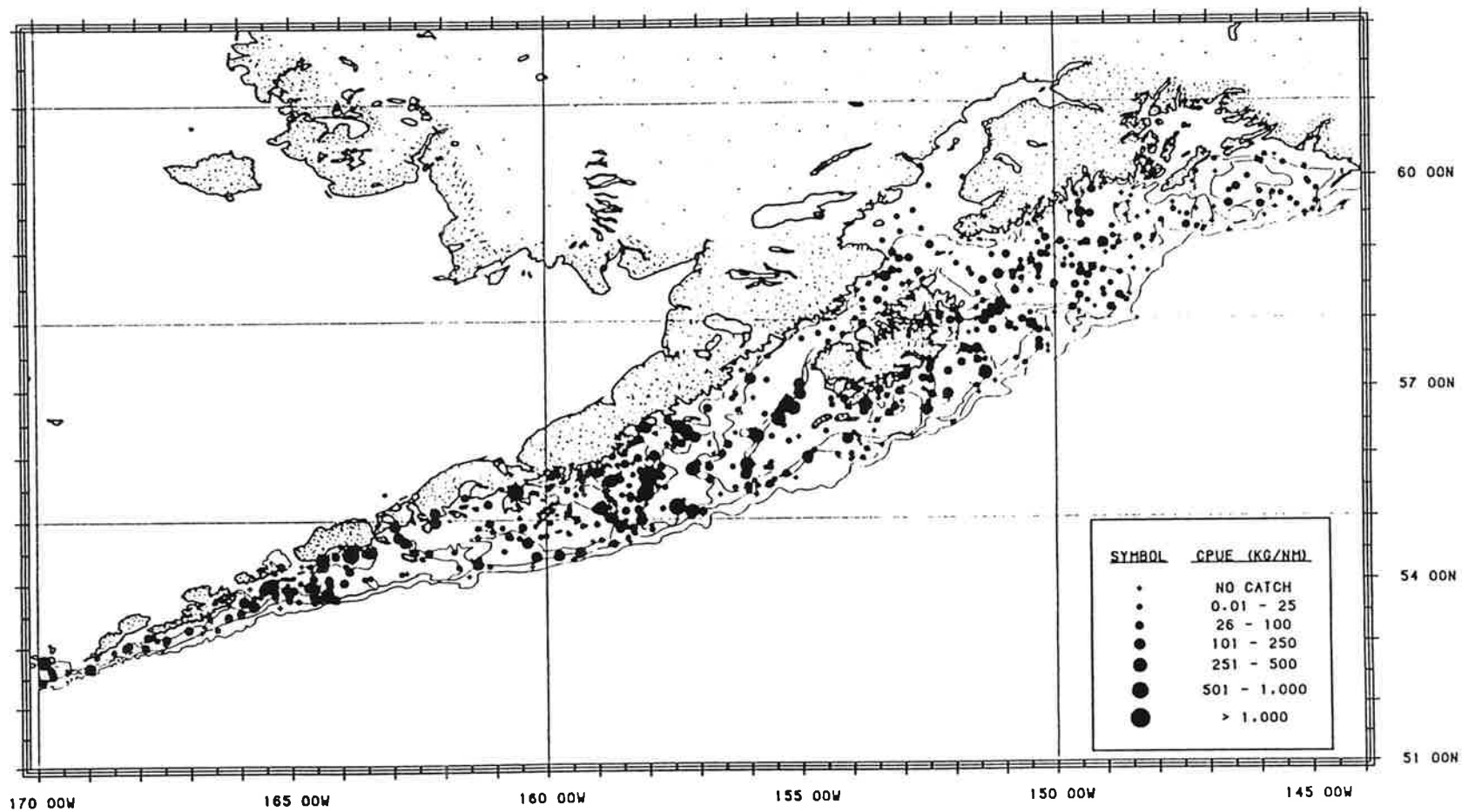


Figure 9. --Catch per unit effort (kilograms/nautical mile) of Pacific cod, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

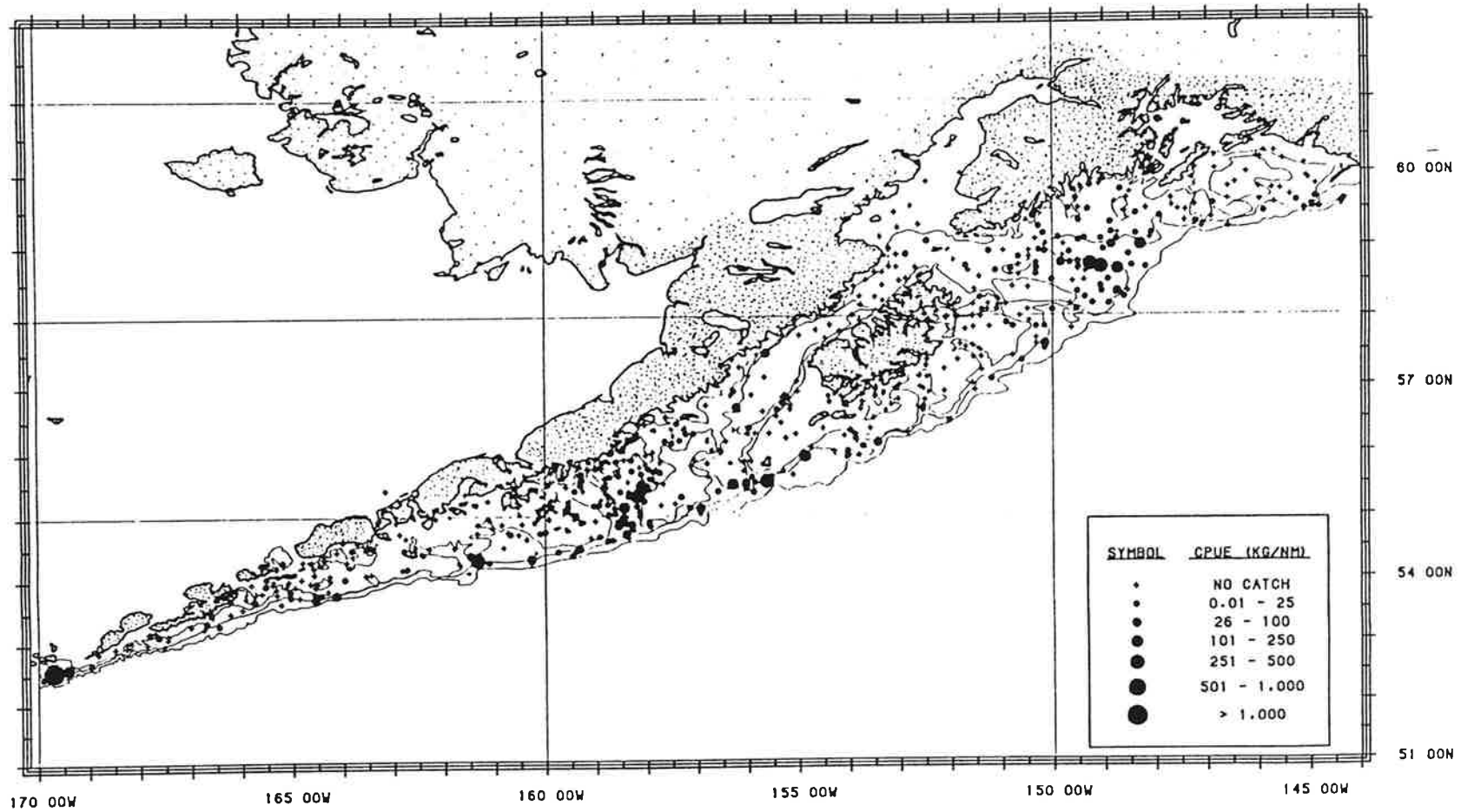


Figure 10. --Catch per unit effort (kilograms/nautical mile) of Pacific ocean perch, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

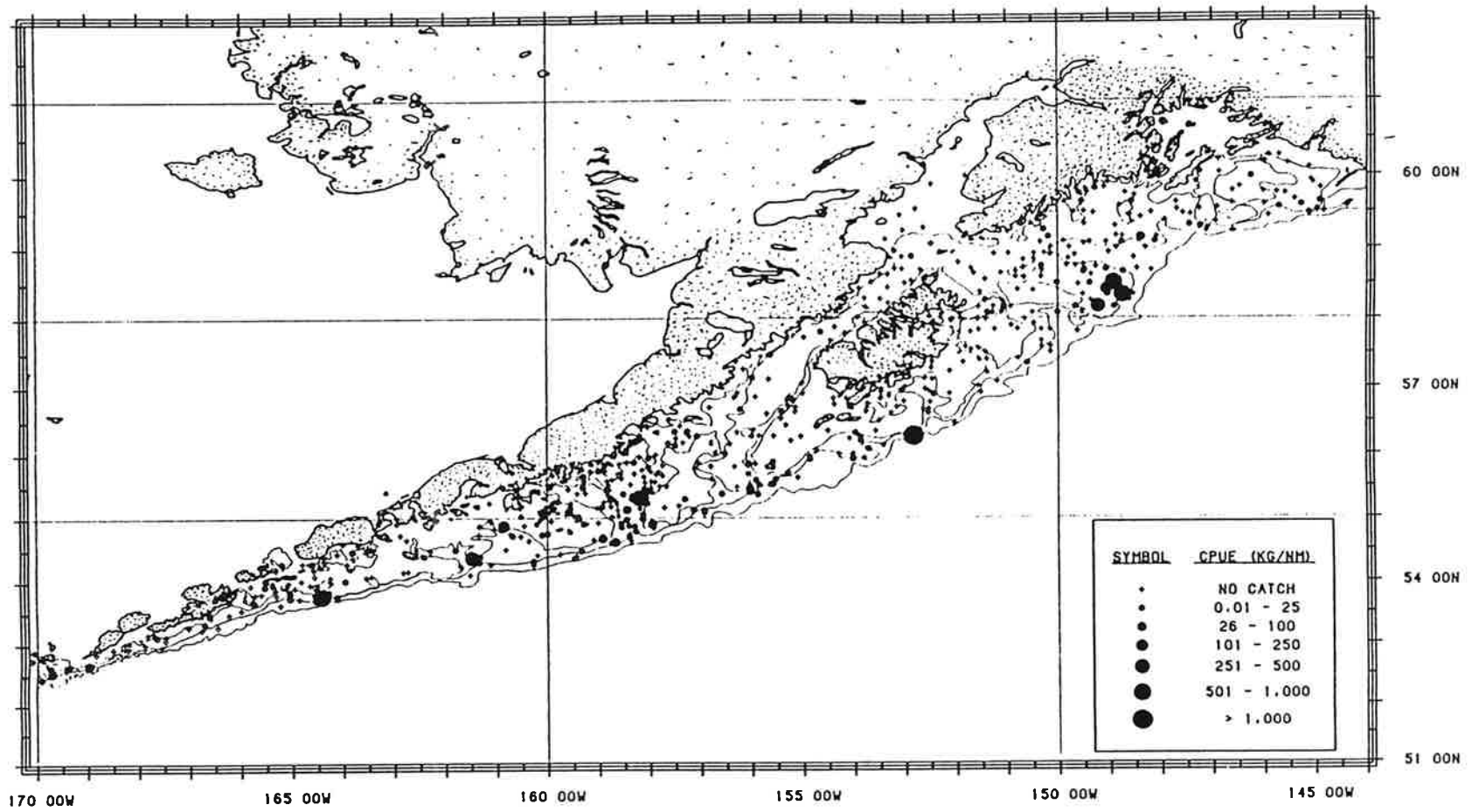


Figure 11. --Catch per unit effort (kilograms/nautical mile) of northern rockfish, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

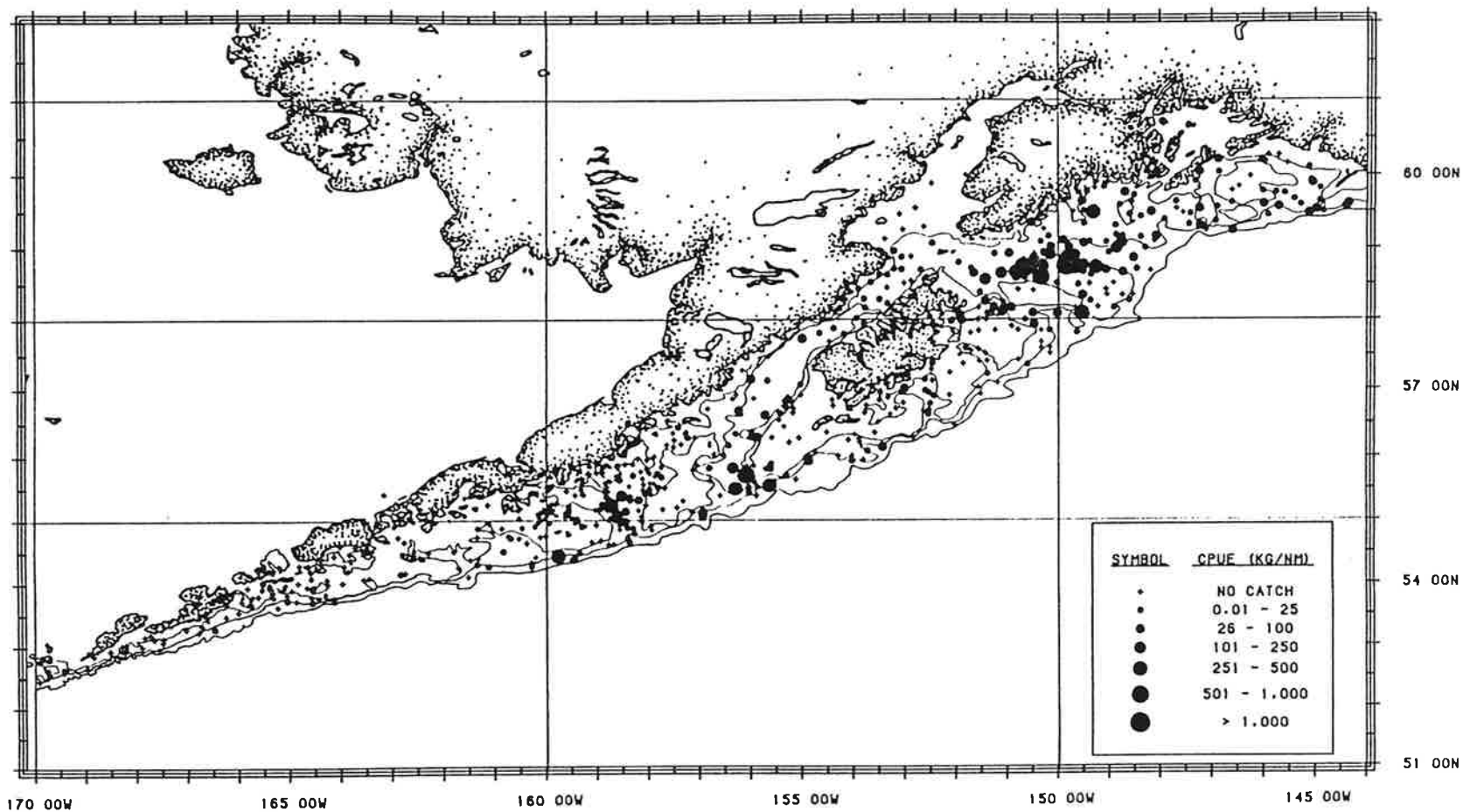


Figure 12. --Catch per unit effort (kilograms/nautical mile) of sablefish, during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

SECTION 2

Fishing log for the Pat San Marie

Station charts of haul numbers plotted adjacent to their respective geographical locations.

Note: Hauls 327 - 329 were completed in the eastern Gulf of Alaska for the Auke Bay Laboratory. The 3 stations are not included in the station plots but are found in the catch listings.

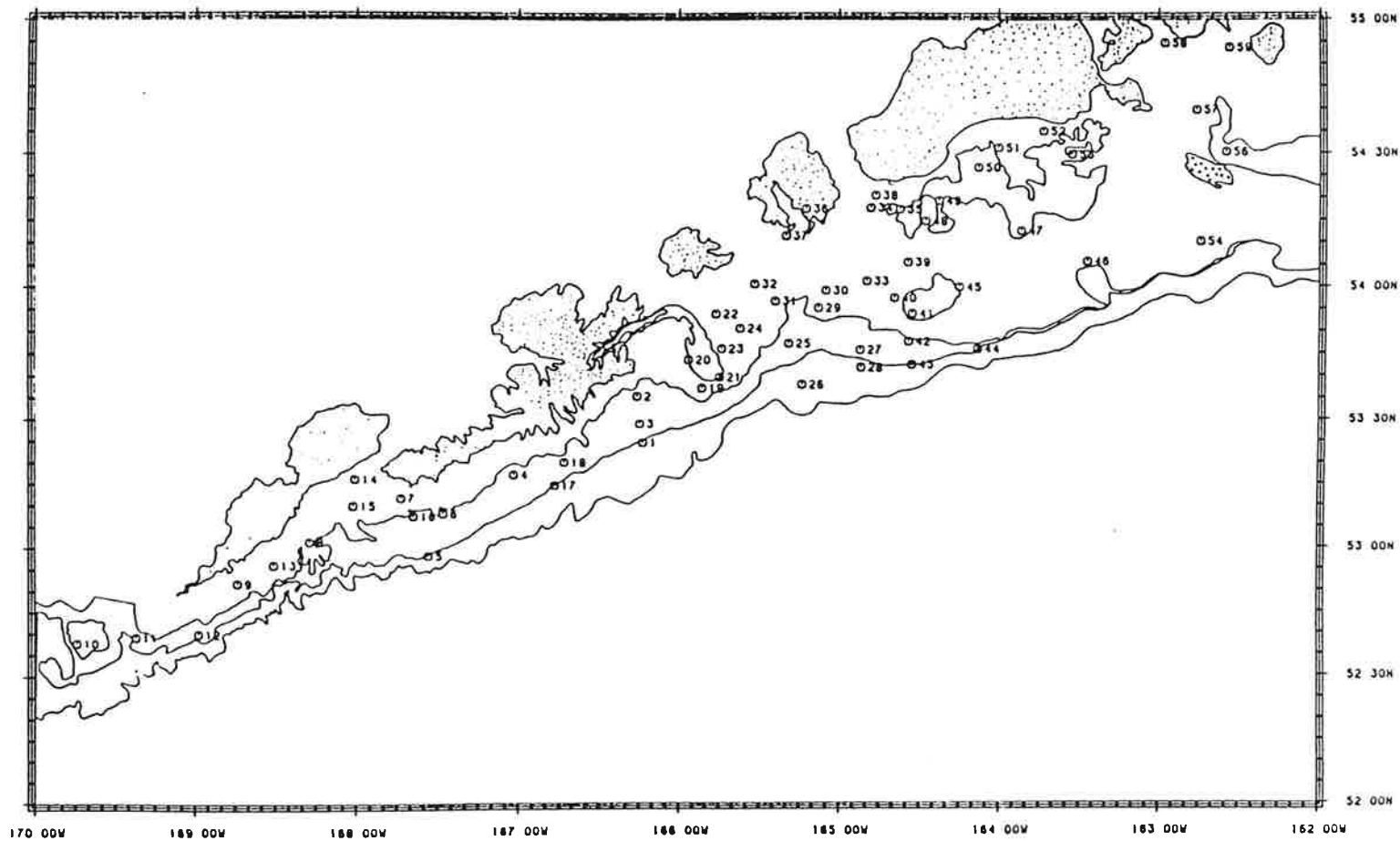


Figure 13. --Stations surveyed by the chartered trawler Pat San Marie in the Islands of Four Mountains - Unimak I. area, (hauls 1-59).

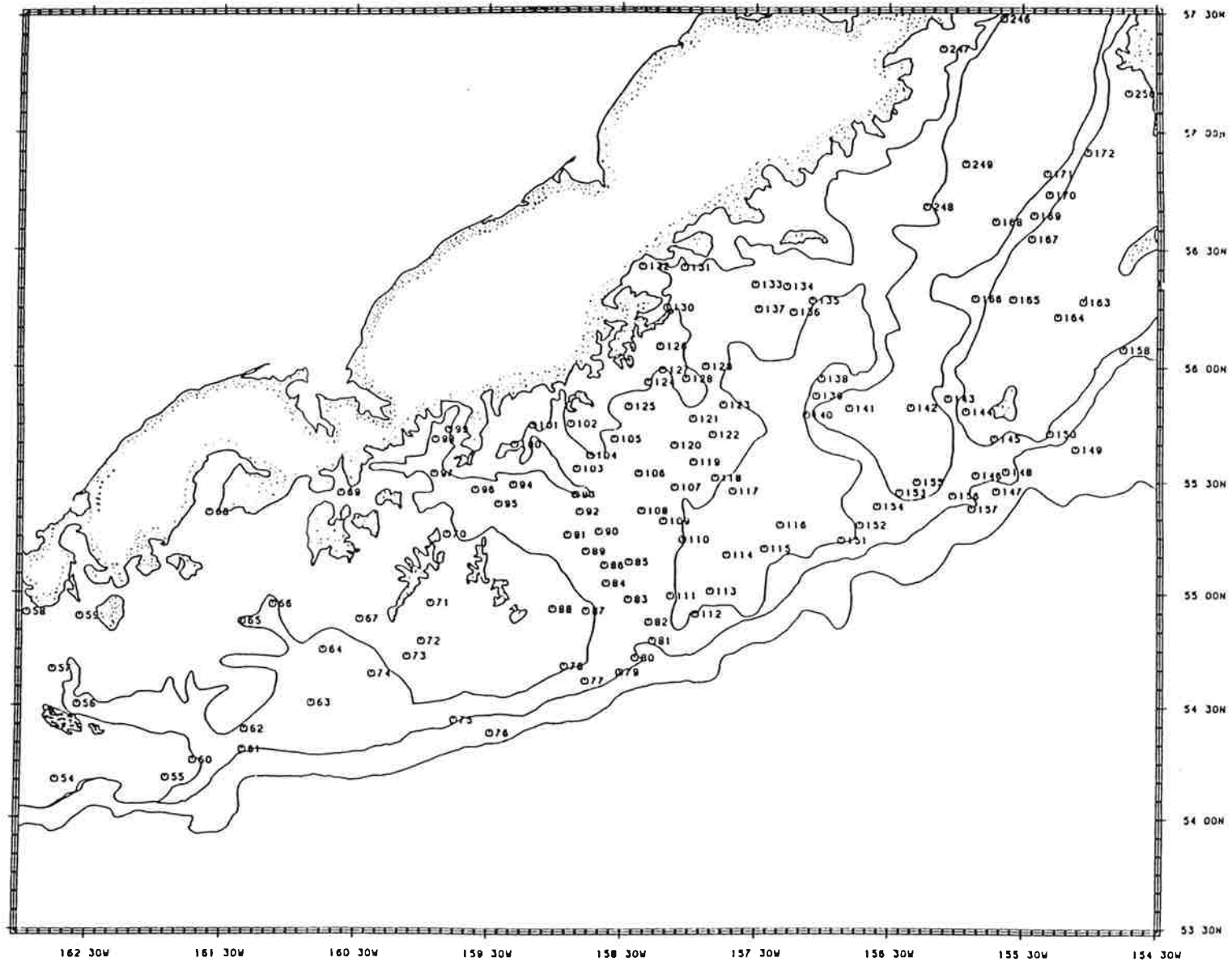


Figure 14. --Stations surveyed by the chartered trawler Pat San Marie in the Sanak Is.-Kodiak I. area, (hauls 54-158, 163-172 and 246-250).

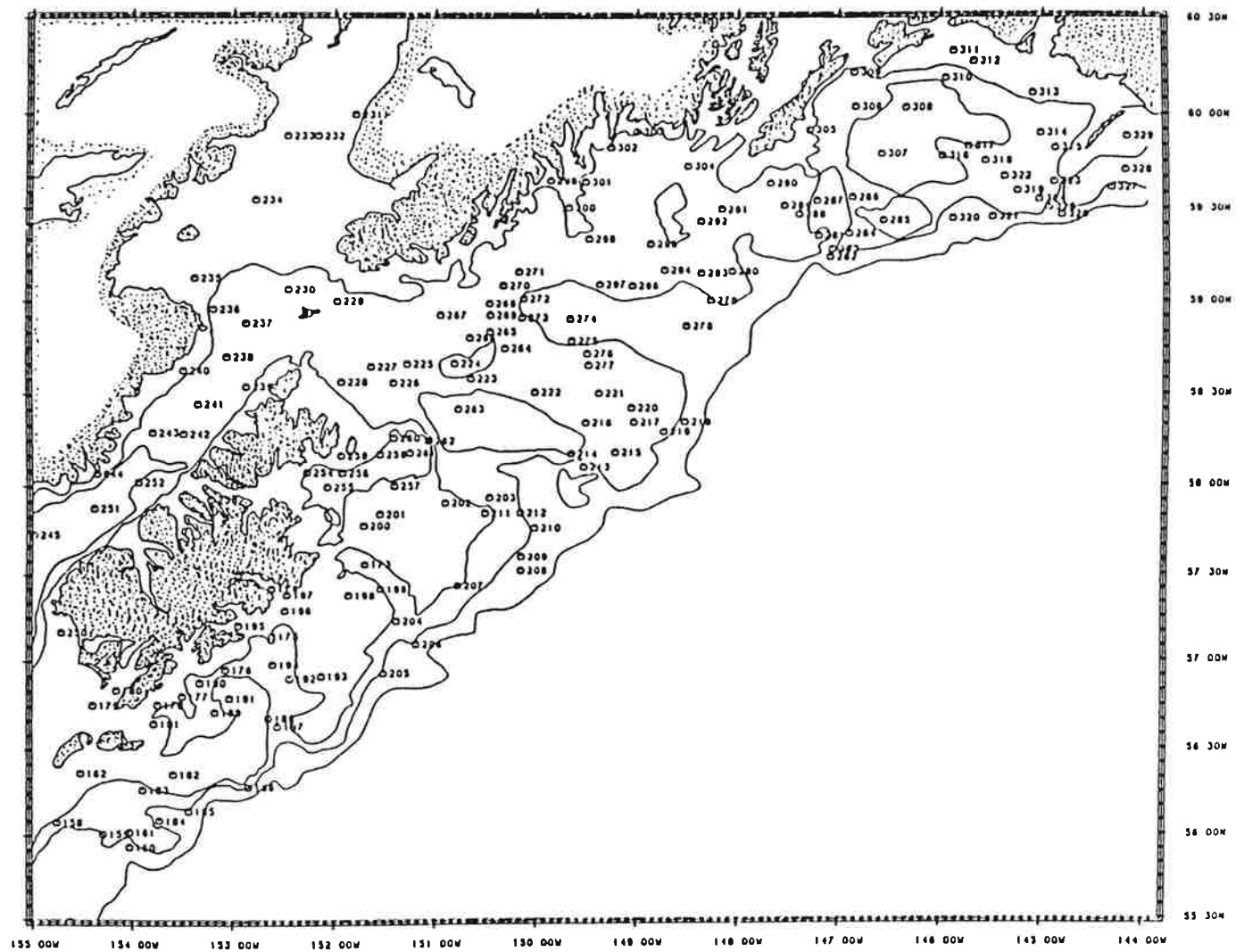


Figure 15. --Stations surveyed by the chartered trawler Pat San Marie in the Kodiak I.-Kayak I. area, (hauls 158-162, 173-245 and 250-329).

SECTION 2 (continued)

Fishing log for the Pat San Marie

Summary listings of species catches by haul

- Each haul entry includes the latitude, longitude, loran readings, bottom depth in fathoms, duration of tow, distance fished in nautical miles and the catch in kilograms for each major species.

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	1	2	3	4	5	6	7	8	9	10	11
MONTH/DAY/YEAR	6/ 4/90	6/ 4/90	6/ 4/90	6/ 4/90	6/ 4/90	6/ 5/90	6/ 5/90	6/ 5/90	6/ 5/90	6/ 6/90	6/ 6/90
LATITUDE START	53 27.5	53 27.2	53 28.9	53 17.0	52 58.1	53 8.0	53 11.6	53 1.4	52 51.8	52 37.7	52 39.1
LONGITUDE START	166 13.2	166 15.3	166 14.4	167 1.5	167 33.3	167 27.7	167 43.3	168 17.1	168 43.6	169 44.0	169 21.9
LATITUDE END	53 28.1	53 27.9	53 28.4	53 16.5	52 58.4	53 8.2	53 11.4	53 1.6	52 51.7	52 37.8	52 38.4
LONGITUDE END	166 15.7	166 12.8	166 16.8	167 4.0	167 30.6	167 30.5	167 45.8	168 14.3	168 42.5	169 42.0	169 19.7
LORAN START	17849.80	17844.80	17853.90	17702.20	17532.50	17598.20	17577.00	17434.70	17306.80	17035.20	17118.30
LORAN START	48245.30	48251.90	48254.70	48454.40	48551.80	48553.00	48629.70	48745.10	48824.40	49004.90	48931.70
LORAN END	17848.80	17824.20	17847.40	17694.40	17541.30	17591.00	17570.10	17443.40	17310.30	17042.60	17121.80
LORAN END	48258.10	48242.80	48263.80	48464.80	48541.10	48564.70	48640.00	48734.40	48820.40	48998.00	48922.20
GEAR DEPTH	82	82	73	56	116	54	46	55	47	45	76
DURATION IN HOURS	0.41	0.41	0.42	0.43	0.38	0.45	0.45	0.50	0.26	0.46	0.44
DISTANCE FISHED	1.26	1.38	1.15	1.36	1.27	1.46	1.32	1.67	0.65	1.14	1.47
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	7 /172	0 /172	0 /172
POLLOCK	0.0	0.0	1.4	0.0	22.9	0.0	0.0	0.2	0.0	0.0	0.1
PACIFIC COD	49.0	0.0	47.2	142.0	0.0	60.3	4.5	9.5	5.4	93.9	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	158.3	0.0	367.4	4.1	0.0	1.8	1.1	78.5	0.0	0.0	5.4
HALIBUT	24.9	0.0	10.6	28.8	0.0	40.3	42.0	22.3	9.4	89.8	67.6
FLATHEAD SOLE	19.5	0.0	7.7	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	26.3	0.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROCK SOLE	70.3	0.0	49.9	116.6	0.0	83.5	151.5	18.6	12.5	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.3	0.0	3.9
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	119.5	0.9	35.8
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2676.2	0.0
SCULPINS	0.0	0.0	0.5	0.0	0.0	0.0	0.1	7.3	5.7	1.4	0.8
SKATES	0.0	0.0	13.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	12	13	14	15	16	17	18	19	20	21	22
MONTH/DAY/YEAR	6/ 6/90	6/ 7/90	6/ 7/90	6/ 7/90	6/ 7/90	6/ 7/90	6/ 7/90	6/ 8/90	6/ 9/90	6/ 9/90	6/10/90
LATITUDE START	52 39.9	52 56.0	53 16.1	53 9.9	53 7.4	53 14.5	53 19.9	53 37.1	53 43.4	53 39.5	53 53.7
LONGITUDE START	168 58.4	168 30.2	168 0.2	167 49.9	167 38.7	166 46.3	166 42.6	165 51.1	165 56.1	165 44.4	165 45.8
LATITUDE END	52 39.8	52 54.8	53 15.5	53 10.8	53 7.4	53 15.2	53 20.7	53 36.9	53 42.5	53 39.1	53 54.1
LONGITUDE END	168 56.0	168 31.2	168 1.3	167 49.8	167 36.2	166 44.3	166 40.4	165 50.4	165 54.1	165 43.3	165 43.1
LORAN START	17198.60	17368.60	17557.70	17551.90	17566.90	17722.40	17756.60	17933.00	17954.40	17955.10	18018.40
LORAN START	48848.30	48783.70	48714.80	48653.90	48598.50	48377.30	48371.50	48150.60	48188.60	48120.50	48154.10
LORAN END	17205.70	17359.80	17552.30	17556.70	17573.00	17729.80	17764.90	17933.40	17953.60	17954.80	18024.10
LORAN END	48838.90	48784.60	48716.00	48655.80	48587.80	48369.00	48362.60	48146.60	48176.50	48114.20	48140.90
GEAR DEPTH	81	51	25	45	57	105	59	50	65	56	43
DURATION IN HOURS	0.42	0.42	0.14	0.27	0.43	0.50	0.46	0.18	0.43	0.30	0.50
DISTANCE FISHED	1.26	1.12	0.64	0.73	1.29	1.39	1.54	0.46	1.29	0.76	1.60
PERFORMANCE / GEAR	0 /172	1 /172	6 /172	1 /172	0 /172	0 /172	0 /172	7 /172	0 /172	1 /172	0 /172
POLLOCK	0.0	0.7	0.0	0.2	0.0	3.2	0.3	0.0	0.0	0.0	0.0
PACIFIC COD	265.8	1.4	0.0	25.4	8.2	0.0	0.0	0.0	203.2	116.8	334.3
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	2.3	20.9	0.0	3.6	6.4	1.6	19.5	0.5	265.8	393.3	1.4
HALIBUT	67.3	24.6	0.0	42.5	104.1	0.0	33.7	0.0	44.4	22.4	38.9
FLATHEAD SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	2.9	0.4
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.1	0.0
ROCK SOLE	1.8	94.3	0.0	66.2	80.7	2.3	23.6	6.4	66.7	18.1	129.7
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	1.4	0.0	0.0	0.5	0.9	0.0	1.1	2.7	0.0	0.9	0.0
ROUGHEYE RKFH	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	109.3	0.0	0.0	0.0	1.8	0.0	0.5	1.6	0.0	0.9	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	61.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	10.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	2.1	1.8	9.1	0.7	1.8	0.7	0.1	0.6	3.4	7.7	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	101.2
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	23	24	25	26	27	28	29	30	31	32	33
MONTH/DAY/YEAR	6/10/90	6/10/90	6/10/90	6/10/90	6/10/90	6/10/90	6/11/90	6/11/90	6/11/90	6/11/90	6/11/90
LATITUDE START	53 47.9	53 48.5	53 47.1	53 37.9	53 43.7	53 43.7	53 55.1	53 59.0	53 56.6	54 0.5	54 1.2
LONGITUDE START	165 43.7	165 36.8	165 18.7	165 13.8	164 52.1	164 51.8	165 7.6	165 4.8	165 23.8	165 31.4	164 49.6
LATITUDE END	53 48.2	53 47.2	53 47.7	53 37.9	53 43.2	53 43.3	53 55.5	54 0.1	53 57.1	54 0.6	54 2.6
LONGITUDE END	165 41.3	165 34.9	165 16.6	165 10.9	164 49.7	164 49.7	165 11.2	165 2.9	165 26.1	165 29.9	164 49.7
LORAN START	17994.80	18007.80	18027.90	17994.20	18049.10	18049.90	18077.70	18098.30	18062.70	18069.60	18126.10
LORAN END	48132.40	48096.60	48027.80	47956.90	47848.90	47847.30	47951.30	47941.40	48041.40	48088.90	47860.30
LORAN END	17999.50	18004.90	18033.50	17998.40	18050.20	18050.80	18074.80	18105.00	18062.00	18072.30	18132.20
LORAN END	48119.90	48084.80	47987.70	47941.40	47835.70	47835.80	47970.80	47932.50	48054.30	48081.10	47862.70
GEAR DEPTH	42	43	76	233	109	105	50	45	46	36	51
DURATION IN HOURS	0.56	0.49	0.42	0.50	0.53	0.38	0.98	0.46	0.45	0.26	0.52
DISTANCE FISHED	1.47	1.64	1.42	1.74	1.45	1.26	1.97	1.37	1.26	0.76	1.48
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	5 /172	0 /172	1 /172	0 /172	0 /172	1 /172	0 /172
POLLOCK	0.0	0.1	0.0	0.7	2.3	90.3	162.8	0.1	0.1	0.0	0.0
PACIFIC COD	2.3	18.6	10.4	0.0	0.0	19.1	83.5	9.5	327.5	6.4	6.1
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	3.2	5.0	168.7	2.0	0.0	8.6	13.2	0.7	32.7	0.0	0.0
HALIBUT	7.8	65.5	4.8	0.0	0.0	0.0	44.7	25.9	74.8	22.4	1.3
FLATHEAD SOLE	0.0	0.2	0.7	0.0	0.0	3.9	0.0	0.0	0.0	0.0	0.0
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
REX SOLE	0.0	0.0	10.0	0.0	0.0	30.4	0.7	0.0	0.0	0.0	0.0
ROCK SOLE	131.1	130.2	2.7	0.0	0.0	0.0	89.8	53.5	183.3	10.9	0.4
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	3.6	0.7	0.0	0.0	0.0	0.0	6.8	1.5	0.5	2.1	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	34	35	36	37	38	39	40	41	42	43	44
MONTH/DAY/YEAR	6/11/90	6/11/90	6/14/90	6/14/90	6/17/90	6/17/90	6/17/90	6/17/90	6/17/90	6/17/90	6/18/90
LATITUDE START	54 17.6	54 17.3	54 17.3	54 11.3	54 20.4	54 5.5	53 57.3	53 53.8	53 47.6	53 42.4	53 45.8
LONGITUDE START	164 48.1	164 37.2	165 12.2	165 19.7	164 46.3	164 34.2	164 39.2	164 32.6	164 34.0	164 32.7	164 8.0
LATITUDE END	54 18.3	54 17.5	54 16.7	54 9.9	54 20.2	54 5.7	53 55.8	53 53.2	53 47.2	53 42.8	53 46.8
LONGITUDE END	164 46.2	164 37.4	165 9.6	165 18.6	164 46.2	164 36.7	164 39.2	164 30.2	164 31.4	164 30.2	164 7.1
LORAN START	18195.90	18206.40	18167.90	18132.50	18209.20	18161.60	18122.40	18115.70	18088.50	18068.70	18112.30
LORAN START	47874.40	47811.80	48010.30	48042.80	47867.50	47779.50	47797.00	47755.00	47754.80	47741.30	47609.80
LORAN END	18200.90	18207.30	18168.30	18127.90	18209.40	18159.70	18115.80	18116.10	18090.10	18073.60	18116.70
LORAN END	47864.40	47813.30	47994.80	48034.60	47866.40	47793.70	47795.00	47741.40	47740.80	47728.30	47605.40
GEAR DEPTH	41	54	81	35	36	50	50	61	57	116	115
DURATION IN HOURS	0.46	0.08	0.39	0.46	0.01	0.45	0.45	0.43	0.43	0.38	0.30
DISTANCE FISHED	1.23	0.30	1.27	1.37	0.02	1.31	1.43	1.29	1.30	1.16	1.01
PERFORMANCE / GEAR	0 /172	1 /172	0 /172	0 /172	6 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.4	0.0	0.0	0.0	0.5	1.8	7.7	0.0	131.1	17.7
PACIFIC COD	0.0	6.4	119.7	0.1	0.0	35.8	181.4	83.5	103.4	14.5	27.7
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	11.8
ARROWTOOTH FL.	0.0	0.0	1205.3	0.0	0.0	31.8	35.8	97.3	123.8	8.2	18.6
HALIBUT	15.7	33.3	38.6	89.4	0.0	11.6	55.4	46.9	13.0	9.3	0.0
FLATHEAD SOLE	0.0	0.0	15.4	0.0	0.0	17.7	0.0	20.2	20.0	0.9	3.2
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
REX SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1	0.0	5.4	14.5
ROCK SOLE	0.0	0.0	5.9	0.0	2.3	92.1	141.1	26.3	60.3	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	89.4	46.3
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
NORTHERN RKFH	0.0	0.2	5.4	0.0	0.0	0.0	0.0	0.0	0.0	2.3	4.1
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.5	4.8	395.4	5.4	1.9	0.0	0.4	0.0	0.0	1.0	0.2
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.2	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	45	46	47	48	49	50	51	52	53	54	55
MONTH/DAY/YEAR	6/18/90	6/18/90	6/18/90	6/18/90	6/18/90	6/19/90	6/19/90	6/19/90	6/19/90	6/20/90	6/20/90
LATITUDE START	53 59.8	54 5.7	54 12.5	54 14.6	54 19.2	54 26.7	54 31.2	54 34.9	54 29.7	54 10.2	54 10.6
LONGITUDE START	164 14.9	163 27.0	163 51.6	164 27.5	164 22.5	164 7.7	164 0.2	163 43.2	163 32.7	162 44.3	161 54.9
LATITUDE END	54 1.2	54 6.4	54 13.9	54 16.1	54 20.5	54 28.1	54 31.8	54 34.6	54 29.0	54 9.4	54 10.7
LONGITUDE END	164 16.3	163 24.6	163 52.5	164 26.5	164 23.2	164 9.1	163 58.3	163 42.5	163 30.5	162 42.8	161 54.3
LORAN START	18159.70	18228.90	18231.60	18205.40	18228.30	18270.70	18294.30	18320.30	18309.90	18279.90	18316.70
LORAN START	47663.60	47393.70	47542.70	47752.60	47729.30	47650.80	47610.70	47512.70	47445.90	47147.00	46854.90
LORAN END	18163.70	18233.40	18236.30	18212.10	18233.10	18274.80	18297.30	18319.90	18309.00	18278.20	18317.10
LORAN END	47672.70	47380.50	47548.90	47748.70	47734.40	47660.60	47600.10	47507.90	47432.20	47138.00	46851.80
GEAR DEPTH	54	53	60	44	55	59	46	43	60	42	45
DURATION IN HOURS	0.42	0.50	0.47	0.45	0.45	0.46	0.41	0.11	0.43	0.38	0.13
DISTANCE FISHED	1.59	1.54	1.54	1.55	1.42	1.44	1.04	0.37	1.29	1.09	0.23
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	7 /172	1 /172	0 /172	0 /172	7 /172
POLLOCK	0.7	1.2	0.0	0.0	18.1	15.9	7.7	3.4	0.5	0.0	0.0
PACIFIC COD	152.4	27.7	61.2	3.2	147.4	54.4	150.1	34.9	132.9	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	57.6	46.3	105.2	4.5	39.5	131.5	64.4	65.3	89.4	0.0	0.0
HALIBUT	100.7	20.2	18.1	19.5	19.4	81.5	38.1	19.8	61.3	17.0	0.0
FLATHEAD SOLE	7.3	68.5	31.8	0.0	6.4	88.9	42.2	49.9	6.1	0.0	0.0
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	0.4	0.7	8.4	0.0	4.5	1.8	0.7	0.0	0.1	0.0	0.0
ROCK SOLE	103.0	137.9	1.4	63.3	118.2	7.7	154.7	112.0	18.6	2.5	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.3	0.9	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
SCULPINS	0.0	1.4	0.0	0.9	24.3	0.0	16.2	9.5	1.8	0.7	0.0
SKATES	0.0	19.5	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	5.0	0.0	3.2	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.9	0.7	1.4	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	56	57	58	59	60	61	62	63	64	65	66
MONTH/DAY/YEAR	6/20/90	6/21/90	6/21/90	6/21/90	6/22/90	6/22/90	6/22/90	6/22/90	6/22/90	6/23/90	6/23/90
LATITUDE START	54 30.4	54 39.8	54 54.8	54 53.8	54 15.4	54 18.3	54 23.8	54 30.8	54 45.1	54 52.6	54 57.0
LONGITUDE START	162 34.8	162 45.9	162 57.8	162 33.7	161 42.7	161 20.5	161 19.5	160 49.5	160 44.1	161 20.5	161 6.7
LATITUDE END	54 30.6	54 39.4	54 55.8	54 53.8	54 15.9	54 18.6	54 25.1	54 31.2	54 46.5	54 51.6	54 56.4
LONGITUDE END	162 35.7	162 48.3	162 59.6	162 33.7	161 43.8	161 18.1	161 20.7	160 47.1	160 42.7	161 22.1	161 5.6
LORAN START	18352.20	18375.20	18415.70	18424.80	18339.00	18360.70	18376.90	18411.40	18450.80	18455.00	18472.00
LORAN START	47098.10	47168.40	47247.10	47097.50	46783.00	46650.00	46642.30	46459.10	46419.50	46642.50	46554.70
LORAN END	18352.20	18372.40	18417.70	18424.70	18339.70	18362.90	18380.10	18413.90	18455.00	18451.80	18471.20
LORAN END	47103.50	47182.60	47258.70	47097.70	46789.20	46635.40	46649.50	46444.40	46410.00	46652.10	46548.00
GEAR DEPTH	80	45	68	13	46	82	61	77	64	77	61
DURATION IN HOURS	0.09	0.47	0.43	0.00	0.18	0.44	0.45	0.51	0.43	0.42	0.35
DISTANCE FISHED	0.28	1.28	1.23	0.03	0.58	1.45	1.39	1.48	1.44	1.31	0.80
PERFORMANCE / GEAR	1 /172	0 /172	0 /172	5 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	1 /172
POLLOCK	9.3	3266.9	298.9	0.0	0.0	33.1	0.1	1.4	4.5	155.6	1050.4
PACIFIC COD	26.3	134.7	174.6	0.0	0.5	187.3	5.9	15.9	49.0	1.8	26.1
SABLEFISH	0.0	0.0	0.0	0.0	0.0	37.2	0.0	0.7	0.0	0.0	0.0
ARROWTOOTH FL.	49.0	98.9	45.6	0.0	0.0	158.1	99.6	154.2	552.9	389.6	415.4
HALIBUT	0.0	64.8	0.0	0.0	20.1	16.2	29.9	29.9	81.5	27.4	20.6
FLATHEAD SOLE	50.3	220.7	243.1	0.0	0.0	0.9	0.0	15.2	24.5	115.2	72.1
DOVER SOLE	0.0	0.0	0.5	0.0	0.0	5.4	0.0	1.6	0.0	0.0	0.0
REX SOLE	2.0	1.8	0.0	0.0	0.0	5.0	0.0	5.9	1.4	1.4	0.7
ROCK SOLE	0.5	101.6	7.7	0.0	5.0	0.0	29.9	0.0	0.9	0.6	2.4
STARRY FLOUNDER	0.0	0.0	116.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.7	5.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	464.3	1.4	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	4.1	3.6	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	28.1	12.5	0.0	2.7	7.7	13.6	0.0	0.0	0.6	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.2	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	67	68	69	70	71	72	73	74	75	76	77
MONTH/DAY/YEAR	6/23/90	6/26/90	6/27/90	6/27/90	6/27/90	6/27/90	6/27/90	6/28/90	6/28/90	6/28/90	6/28/90
LATITUDE START	54 53.2	55 21.6	55 27.0	55 15.7	54 57.4	54 45.4	54 44.3	54 38.6	54 26.3	54 22.9	54 36.9
LONGITUDE START	160 27.6	161 35.4	160 36.2	159 48.4	159 55.8	159 59.9	160 6.4	160 22.2	159 45.2	159 28.9	158 46.1
LATITUDE END	54 53.2	55 19.6	55 26.4	55 14.5	54 55.8	54 45.6	54 43.8	54 39.4	54 26.7	54 23.6	54 37.6
LONGITUDE END	160 25.1	161 34.6	160 33.7	159 47.4	159 58.0	160 2.2	160 3.9	160 19.7	159 42.0	159 26.8	158 43.2
LORAN START	18477.20	18523.20	18551.90	18540.40	18498.60	18469.30	18464.20	18444.00	18430.20	18428.50	18476.90
LORAN START	46313.30	46729.80	46348.40	46052.00	46112.50	46148.40	46188.50	46288.80	46068.80	45981.30	45713.90
LORAN END	18478.50	18518.70	18551.30	18537.90	18493.90	18468.80	18463.90	18447.00	18431.90	18431.10	18479.30
LORAN END	46297.80	46724.90	46332.80	46046.50	46128.10	46162.10	46173.50	46273.40	46055.40	45968.50	45693.20
GEAR DEPTH	40	56	66	36	27	41	43	61	79	240	68
DURATION IN HOURS	0.46	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.32	2.00	1.52	1.46	2.19	1.32	1.56	1.63	1.32	1.40	2.03
PERFORMANCE / GEAR	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172
POLLOCK	98.4	1278.7	1180.3	0.1	0.0	0.1	14.5	4.2	0.0	0.0	0.1
PACIFIC COD	76.7	120.0	908.3	0.0	1.6	3.4	14.8	254.0	192.5	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	637.4	0.0	0.0
ARROWTOOTH FL.	410.0	43.7	323.7	0.5	0.2	0.9	0.7	1377.9	2992.0	0.0	35.6
HALIBUT	96.4	79.4	426.1	22.4	13.4	124.1	86.9	9.1	45.1	0.0	31.2
FLATHEAD SOLE	10.9	274.1	157.6	0.5	0.0	0.0	0.0	7.2	0.0	0.0	0.0
DOVER SOLE	0.0	1.3	0.0	0.0	0.0	0.0	0.0	16.7	27.5	3.6	0.0
REX SOLE	0.0	0.0	4.6	0.0	0.0	0.0	0.0	44.4	50.0	0.5	0.0
ROCK SOLE	336.1	8.5	28.5	13.3	32.7	10.7	8.8	1.1	0.0	0.0	0.0
STARRY FLOUNDER	0.5	190.4	123.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	6.8	1.6	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	27.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	3.7	0.0	0.0	0.1	0.5	0.0	1.5	0.0	0.2
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0
NORTHERN RKFH	0.0	0.0	6.6	0.1	0.0	7.3	7.3	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	44.4	0.9	0.0	1.1	0.2	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	13.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	10.7	33.1	102.9	1.1	0.0	5.8	3.4	4.1	0.0	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	78	79	80	81	82	83	84	85	86	87	88
MONTH/DAY/YEAR	6/28/90	6/29/90	6/29/90	6/29/90	6/29/90	6/29/90	6/30/90	6/30/90	6/30/90	6/30/90	6/30/90
LATITUDE START	54 40.9	54 39.3	54 43.2	54 47.6	54 52.6	54 58.5	55 2.7	55 8.4	55 7.5	55 1.9	54 55.9
LONGITUDE START	158 55.5	158 30.6	158 23.8	158 16.2	158 17.8	158 27.0	158 36.8	158 26.7	158 37.5	158 44.5	159 0.7
LATITUDE END	54 42.1	54 40.0	54 41.7	54 46.8	54 52.9	54 59.5	55 4.0	55 9.9	55 8.4	55 3.0	54 57.1
LONGITUDE END	158 53.5	158 29.9	158 24.3	158 18.4	158 19.8	158 28.6	158 38.5	158 26.5	158 39.5	158 46.4	159 2.6
LORAN START		18487.40	18497.40	18508.90	18518.40	18527.30	18532.90	18546.50	18541.90	18529.20	18512.20
LORAN START		45615.80	45570.20	45517.90	45520.20	45566.70	45620.60	45550.80	45619.30	45669.10	45775.70
LORAN END	18485.40	18488.90	18494.30	18506.60	18518.40	18528.90	18535.10	18549.40	18543.20	18531.20	18514.40
LORAN END	45748.90	45611.00	45575.20	45532.20	45531.90	45574.90	45629.20	45547.50	45629.90	45679.20	45785.60
GEAR DEPTH	51	97	106	119	103	105	108	94	107	74	44
DURATION IN HOURS	0.50	0.23	0.50	0.50	0.33	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.70	0.72	1.47	1.51	1.21	1.39	1.67	1.52	1.44	1.68	1.72
PERFORMANCE / GEAR	0 /172	7 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.7	1.8	8.2	4.9	2.5	0.9	0.9	0.9	1.1	0.0	3.4
PACIFIC COD	1.6	2.3	29.9	5.2	29.3	15.6	0.0	48.1	0.0	284.2	0.1
SABLEFISH	0.0	0.0	21.8	4.3	2.3	73.3	305.5	105.5	93.7	0.0	0.0
ARROWTOOTH FL.	3.2	4.1	33.6	67.1	71.2	240.2	451.8	90.9	232.0	959.1	0.1
HALIBUT	70.0	0.0	47.8	14.9	16.1	41.7	9.2	100.8	18.6	81.8	61.1
FLATHEAD SOLE	0.0	0.0	0.9	3.9	0.0	2.3	21.3	5.4	78.9	17.9	0.0
DOVER SOLE	0.0	3.2	12.0	6.4	8.8	18.6	10.9	23.1	19.5	10.9	0.0
REX SOLE	0.0	0.7	21.3	91.2	29.7	49.4	18.1	44.0	5.4	77.3	0.2
ROCK SOLE	2.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	14.9
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	16.8	18.1	69.4	25.4	28.3	46.3	1.6	149.0	3.0	0.1	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	7.0	0.0	4.5	0.0	0.3	11.6	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	94.8	1.4	10.4	3.4	3.6	1.8	0.0	47.2	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	8.2	0.0	1.4	1.8	2.7	0.0	141.3	0.0	0.0	0.0
HARLEQUIN	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.9	0.0	0.0	0.0	0.0	0.0	0.0	6.4	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.8	0.7	6.5	0.0	5.4	6.8	1.2	0.9	5.0	0.5	0.1
SKATES	0.0	0.0	0.0	0.0	0.0	5.0	5.7	0.0	2.0	6.3	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.5	0.0	6.6	0.9	1.6	1.4	1.1	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	89		90		91		92		93		94		95		96		97		98		99		
MONTH/DAY/YEAR	7/	1/90	7/	1/90	7/	1/90	7/	1/90	7/	1/90	7/	1/90	7/	2/90	7/	2/90	7/	2/90	7/	2/90	7/	2/90	
LATITUDE START	55	11.3	55	16.5	55	15.6	55	21.9	55	26.5	55	29.1	55	23.9	55	27.8	55	32.1	55	41.2	55	43.8	
LONGITUDE START	158	45.9	158	40.1	158	54.1	158	48.7	158	50.6	159	18.6	159	25.3	159	35.7	159	54.2	159	53.8	159	47.8	
LATITUDE END	55	12.7	55	16.3	55	15.7	55	23.3	55	27.0	55	29.7	55	24.7	55	28.1	55	33.1	55	41.4	55	45.5	
LONGITUDE END	158	46.8	158	42.6	158	51.7	158	49.6	158	53.2	159	21.1	159	27.8	159	38.4	159	56.1	159	51.2	159	47.6	
LORAN START	18547.20	18558.50	18558.50	18553.40	18566.90	18574.50	18573.80	18562.60	18567.50	18572.20	18589.50	18595.50	18549.80	18557.50	18554.20	18568.90	18574.80	18574.20	18563.30	18567.60	18573.60	18590.20	18598.50
LORAN END	45669.40	45639.10	45639.10	45695.90	45674.30	45692.60	45866.50	45913.60	45978.00	46087.70	46049.60	46023.30	45669.40	45623.10	45711.40	45669.40	45676.40	45851.40	45899.00	45961.30	46078.30	46066.30	46025.40
GEAR DEPTH		111		108		111		93		59		65		82		86		98		70		70	
DURATION IN HOURS		0.50		0.50		0.50		0.50		0.50		0.50		0.50		0.50		0.50		0.50		0.50	
DISTANCE FISHED		1.57		1.46		1.41		1.33		1.58		1.47		1.51		1.56		1.49		1.46		1.63	
PERFORMANCE / GEAR	0	/172	0	/172	0	/172	0	/172	0	/172	0	/172	0	/172	0	/172	0	/172	0	/172	0	/172	
POLLOCK		12.5		2.9		8.2		3.2		0.1		0.0		2.5		7.3		196.2		1520.8		642.1	
PACIFIC COD		2.5		1.8		2.7		3.2		7.7		5.4		27.2		19.1		29.5		127.4		49.8	
SABLEFISH		50.6		70.8		27.0		8.6		0.0		0.0		0.0		0.0		0.7		0.0		0.0	
ARROWTOOTH FL.		168.5		310.5		275.1		346.3		269.9		398.3		334.3		280.8		505.1		485.4		442.2	
HALIBUT		19.4		14.5		7.5		0.0		76.8		173.4		18.8		65.9		43.6		222.8		77.8	
FLATHEAD SOLE		91.6		85.3		191.6		92.1		2.3		9.1		26.3		102.1		270.8		139.9		138.6	
DOVER SOLE		4.1		3.2		6.8		0.0		0.0		0.0		0.2		0.7		1.4		0.0		0.0	
REX SOLE		0.9		2.9		4.1		1.1		0.2		7.3		2.9		3.6		0.0		1.6		2.9	
ROCK SOLE		0.0		0.0		0.0		0.0		16.6		1.0		0.0		0.0		1.8		7.9		4.0	
STARRY FLOUNDER		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		54.4		44.7	
YELLOWFIN SOLE		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
BUTTER SOLE		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
ALASKA PLAICE		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		15.8		4.6	
ENGLISH SOLE		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
PAC OC PERCH		0.1		0.0		0.0		0.0		24.3		0.2		0.9		0.0		0.0		0.0		0.0	
ROUGHEYE RKFH		9.8		10.7		12.0		9.8		0.0		0.0		0.7		0.9		4.1		0.0		0.0	
THORNYHEADS		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
NORTHERN RKFH		0.0		0.0		0.0		0.0		13.8		0.2		0.0		0.0		0.0		0.0		0.0	
SHORTRAKER RF		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
DUSKY RKFH		0.0		0.0		0.0		0.0		0.9		0.0		0.0		0.0		0.0		0.0		0.0	
HARLEQUIN		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
SHARPCHIN		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
OTHER RF		0.0		0.0		0.0		0.0		1.1		0.0		0.0		0.0		0.0		0.0		0.0	
ATKA MACKEREL		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
SCULPINS		0.0		6.8		0.1		3.4		0.6		10.0		0.2		5.4		0.0		8.8		2.9	
SKATES		0.0		22.5		0.0		0.0		10.2		2.3		0.0		10.4		0.0		0.0		0.0	
SHARKS		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
TANNER CRAB		0.0		0.5		0.0		0.1		0.0		0.0		0.2		0.0		0.0		0.0		0.0	
KING CRAB		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
DUNGENESS CRAB		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
PINK SHRIMP		0.7		5.0		0.1		1.8		0.0		0.0		1.8		0.0		1.8		0.0		0.0	
SIDE STRIPE SHRIMP		0.2		0.5		0.0		0.1		0.0		0.0		0.0		0.0		0.0		0.0		0.0	
SCALLOP		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0	

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	100	101	102	103	104	105	106	107	108	109	110
MONTH/DAY/YEAR	7/ 3/90	7/ 3/90	7/ 3/90	7/ 3/90	7/ 3/90	7/ 3/90	7/ 4/90	7/ 4/90	7/ 4/90	7/ 4/90	7/ 4/90
LATITUDE START	55 39.8	55 44.9	55 45.3	55 35.4	55 36.9	55 38.3	55 32.2	55 28.6	55 22.2	55 19.4	55 14.5
LONGITUDE START	159 18.1	159 10.0	158 53.0	158 50.1	158 44.0	158 33.3	158 22.5	158 6.3	158 21.2	158 11.4	158 2.7
LATITUDE END	55 41.1	55 45.6	55 44.3	55 34.6	55 37.5	55 39.5	55 31.8	55 27.8	55 20.8	55 20.9	55 15.9
LONGITUDE END	159 17.0	159 7.8	158 51.3	158 47.8	158 46.7	158 31.7	158 20.1	158 8.6	158 20.1	158 10.5	158 3.2
LORAN START	18593.10	18603.70	18607.00	18590.60	18594.20	18598.50	18590.20	18586.80	18572.70	18569.80	18563.20
LORAN START	45837.70	45780.20	45670.50	45663.00	45623.00	45552.80	45491.90	45396.00	45497.70	45440.90	45394.70
LORAN END	18595.90	18605.40	18605.50	18589.60	18595.00	18600.80	18589.70	18585.30	18570.90	18572.90	18565.70
LORAN END	45829.60	45765.30	45661.20	45649.30	45639.40	45541.30	45477.60	45411.50	45492.90	45433.00	45395.80
GEAR DEPTH	57	58	40	87	84	71	79	70	75	68	50
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.58	1.47	1.39	1.54	1.71	1.51	1.46	1.47	1.49	1.73	1.51
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	12.0	2240.5	0.7	743.7	98.6	0.1	3.6	0.0	0.0	0.0	0.4
PACIFIC COD	73.7	140.7	0.0	57.4	769.2	82.8	17.9	42.4	45.0	165.4	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	13.9	55.1	0.0
ARROWTOOTH FL.	411.0	967.1	0.0	436.4	1261.5	309.1	124.7	608.3	1356.6	343.1	0.1
HALIBUT	90.4	103.8	87.2	66.8	75.5	16.1	29.2	9.3	19.5	85.0	56.6
FLATHEAD SOLE	56.9	107.5	0.0	49.0	36.8	19.5	69.6	29.5	27.8	29.5	0.0
DOVER SOLE	0.4	0.0	0.0	0.0	1.8	0.3	0.0	4.1	4.3	6.9	0.0
REX SOLE	0.9	0.4	0.0	1.7	31.5	3.4	1.1	4.1	85.6	101.9	0.0
ROCK SOLE	5.2	19.0	28.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.3
STARRY FLOUNDER	0.0	21.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	7.7	0.0	0.0	0.0	15.8	0.7	0.0	148.3	12.8	494.7	3.4
ROUGHEYE RKFH	0.0	0.0	0.0	5.1	2.6	0.0	23.8	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	1.8	0.0	0.0	0.0	0.0	0.0	0.0	5.7	0.0	948.1	0.1
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.4	0.0	0.0	0.0	13.6	0.0	0.0	5.7	3.8	31.5	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	2.4	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	5.0	5.9	0.0	0.1	0.5	0.7	0.2	4.5	0.0	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.1	0.0	0.0	1.4	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	111	112	113	114	115	116	117	118	119	120	121
MONTH/DAY/YEAR	7/ 5/90	7/ 5/90	7/ 5/90	7/ 5/90	7/ 5/90	7/ 5/90	7/ 6/90	7/ 6/90	7/ 6/90	7/ 6/90	7/ 6/90
LATITUDE START	54 59.4	54 54.7	55 0.6	55 10.4	55 12.1	55 18.4	55 30.6	55 31.1	55 35.3	55 39.7	55 44.6
LONGITUDE START	158 8.1	157 57.0	157 50.4	157 43.1	157 26.1	157 19.0	157 40.4	157 48.4	157 58.1	158 6.6	157 58.4
LATITUDE END	55 0.8	54 54.9	55 1.4	55 10.7	55 13.0	55 20.1	55 30.4	55 32.6	55 37.0	55 47.2	55 44.8
LONGITUDE END	158 6.7	157 54.8	157 50.7	157 40.5	157 24.9	157 18.4	157 43.5	157 49.8	157 59.0	158 6.0	157 56.8
LORAN START	18534.20	18527.90	18541.00	18560.40	18567.00	18579.10	18594.90	18594.30	18599.70	18605.10	45322.70
LORAN START	45448.30	45392.00	45342.60	45281.90	45176.40	45121.60	45231.80	45280.40	45334.60	45381.50	33376.40
LORAN END	18537.00	18529.40	18542.40	18561.50	18568.80	18581.80	18594.10	18596.60	18602.10	18617.10	45312.70
LORAN END	45440.80	45378.70	45343.10	45266.10	45167.90	45115.30	45250.80	45286.50	45337.30	45367.70	33372.70
GEAR DEPTH	74	59	45	44	52	50	54	60	73	71	66
DURATION IN HOURS	0.50	0.50	0.13	0.50	0.33	0.50	0.50	0.50	0.50	0.50	0.40
DISTANCE FISHED	1.45	1.31	0.83	1.48	1.12	1.61	1.73	1.75	1.63	1.50	0.88
PERFORMANCE / GEAR	0 /172	0 /172	6 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	1 /172
POLLOCK	0.0	0.1	0.0	0.0	0.1	0.5	0.6	0.0	4.7	3.6	0.0
PACIFIC COD	224.8	0.0	0.0	24.9	966.1	0.0	10.7	22.9	30.5	79.4	430.9
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0
ARROWTOOTH FL.	631.9	1.6	0.0	0.0	0.9	1.1	191.2	929.0	1715.8	691.0	203.7
HALIBUT	107.5	32.1	190.6	506.8	213.1	49.0	48.6	85.6	11.8	9.0	19.9
FLATHEAD SOLE	17.2	0.7	0.0	0.0	0.0	0.0	50.6	84.1	51.7	30.2	10.9
DOVER SOLE	7.7	0.0	0.0	0.0	0.0	0.0	0.0	7.9	0.0	0.0	2.9
REX SOLE	90.7	0.0	0.0	0.0	0.0	0.0	0.0	78.5	1.6	2.7	8.0
ROCK SOLE	0.0	17.9	0.2	9.1	7.3	6.4	55.3	52.2	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	2.9	14.1	0.0	0.0	2.3	0.0	0.0	0.0	11.3	0.7
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.7	39.5	82.8	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	19.1	1.8
HARLEQUIN	0.0	0.0	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0
SKATES	10.0	0.0	0.0	30.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	122	123	124	125	126	127	128	129	130	131	132
MONTH/DAY/YEAR	7/ 6/90	7/ 7/90	7/ 7/90	7/ 7/90	7/ 7/90	7/ 7/90	7/ 7/90	7/ 7/90	7/ 8/90	7/ 8/90	7/ 8/90
LATITUDE START	55 44.5	55 50.3	55 53.0	55 52.8	55 58.3	55 58.2	55 57.0	56 0.2	56 15.1	56 25.4	56 25.6
LONGITUDE START	157 49.5	157 44.8	158 18.4	158 27.1	158 13.1	158 12.0	158 1.5	157 52.8	158 10.2	158 2.4	158 21.1
LATITUDE END	55 44.7	55 50.1	55 52.7	55 53.0	55 58.3	55 58.1	55 57.9	56 0.6	56 15.6	56 24.9	56 25.9
LONGITUDE END	157 46.8	157 47.2	158 15.9	158 24.1	158 13.1	158 13.6	158 2.3	157 50.2	158 8.3	157 59.7	158 20.7
LORAN START	45266.60	45228.90	45439.60	45495.80		45392.30	45326.40	45266.20	45361.00	45300.00	45422.90
LORAN START	33358.50	33325.50	33384.80	33404.30		33349.80	33332.70	33301.10	33273.30	33211.40	33249.30
LORAN END	45249.30	45246.50	45423.80	45476.20		45402.80	45330.00	45248.70	45348.40	45282.90	45420.70
LORAN END	33352.10	33331.90	33380.80	33397.00		33353.60	33330.50	33294.10	33267.40	33208.30	33247.80
GEAR DEPTH	71	63	45	68	90	87	41	69	61	103	19
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.01	0.30	0.35	0.50	0.40	0.50	0.10
DISTANCE FISHED	1.53	1.55	1.46	1.71	0.00	0.91	0.99	1.53	1.13	1.58	0.25
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	7 /172	0 /172	1 /172	0 /172	0 /172	0 /172	6 /172
POLLOCK	4.6	0.0	0.1	2.9	0.0	1.4	0.0	0.1	149.5	1480.3	6.1
PACIFIC COD	78.7	62.8	0.0	88.9	0.0	41.7	0.0	205.7	43.5	236.5	0.1
SABLEFISH	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	1405.6	2511.3	0.3	689.9	18.1	215.7	0.0	87.5	188.2	186.1	0.0
HALIBUT	79.1	42.0	37.6	180.9	22.1	78.0	43.2	12.2	24.5	0.0	29.8
FLATHEAD SOLE	32.5	7.7	0.0	29.3	20.4	19.1	0.0	1.6	270.3	105.9	0.0
DOVER SOLE	0.0	6.5	0.0	0.2	0.0	2.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	116.4	21.9	0.0	14.3	0.0	0.5	0.0	0.0	2.3	0.0	0.0
ROCK SOLE	0.0	46.2	59.0	14.5	0.0	0.0	16.8	0.1	1.1	0.0	8.4
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.9	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0
ENGLISH SOLE	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	2.5	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
SHORTAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.6	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.1	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	9.2	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	1.8	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	133	134	135	136	137	138	139	140	141	142	143
MONTH/DAY/YEAR	7/11/90	7/11/90	7/11/90	7/11/90	7/11/90	7/12/90	7/12/90	7/12/90	7/12/90	7/12/90	7/12/90
LATITUDE START	56 21.2	56 20.8	56 17.1	56 17.2	56 14.9	55 53.1	55 52.7	55 47.7	55 49.5	55 49.7	55 52.0
LONGITUDE START	157 30.6	157 16.5	157 4.9	157 13.5	157 29.1	157 0.7	157 3.1	157 7.6	156 48.3	156 20.7	156 3.9
LATITUDE END	56 21.1	56 19.8	56 17.1	56 16.1	56 14.3	55 52.6	55 53.2	55 47.9	55 50.9	55 49.3	55 53.4
LONGITUDE END	157 29.2	157 17.3	157 7.4	157 15.6	157 26.7	157 3.7	157 0.7	157 5.1	156 47.7	156 18.2	156 3.4
LORAN START	45095.60	45004.80	44934.40	44989.80	45094.00	44945.80	44963.00	44998.30	44874.90	44704.30	44597.30
LORAN START	33165.20	33139.90	33132.30	33148.40	33190.10	33224.30	33231.40	33260.20	33214.80	33160.50	33119.20
LORAN END	45087.10	45011.30	44950.80	45004.80	45079.20	44965.60	44945.40	44982.10	44868.30	44689.90	44590.90
LORAN END	33163.10	33145.30	33137.50	33157.70	33188.10	33232.90	33224.70	33254.40	33207.80	33157.10	33112.50
GEAR DEPTH	32	65	72	82	89	65	65	51	96	135	82
DURATION IN HOURS	0.25	0.40	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	0.75	0.97	1.41	1.66	1.50	1.80	1.56	1.45	1.48	1.44	1.46
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	5 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	25.9	0.1	105.9	111.1	0.0	7.7	0.5	4.7	12.7	1026.0
PACIFIC COD	0.0	10.7	198.7	103.2	40.1	0.0	61.9	356.1	43.3	28.1	723.3
SABLEFISH	0.0	0.0	0.0	3.8	0.0	0.0	0.0	0.0	17.7	256.7	0.0
ARROWTOOTH FL.	0.0	547.9	412.3	158.8	151.0	0.0	379.7	1.2	1162.1	302.1	1878.5
HALIBUT	5.1	124.6	31.8	40.9	26.7	52.4	28.9	137.2	225.1	28.8	54.7
FLATHEAD SOLE	0.0	46.5	56.9	66.7	66.5	0.0	10.7	0.2	30.3	22.9	28.8
DOVER SOLE	0.0	3.2	1.4	0.0	0.9	0.0	33.1	0.0	54.3	28.6	14.4
REX SOLE	0.0	1.6	1.1	0.1	0.0	0.0	161.9	0.6	27.5	47.6	174.9
ROCK SOLE	0.7	19.5	7.3	1.7	0.0	0.0	2.0	79.4	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	4.3	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	2.5	0.8	0.0	0.0	0.0	2.4	42.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.1	1.6	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.2
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.3	4.8	1.1	0.0	0.0	0.0	0.0	0.0	22.3
SKATES	0.0	0.0	9.8	0.0	14.1	0.0	0.0	0.0	16.5	32.4	0.0
SHARKS	0.0	0.0	0.0	122.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	1.4	0.9	0.0	0.0	0.0	0.0	2.7	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	144	145	146	147	148	149	150	151	152	153	154
MONTH/DAY/YEAR	7/13/90	7/13/90	7/14/90	7/14/90	7/14/90	7/14/90	7/14/90	7/15/90	7/15/90	7/15/90	7/15/90
LATITUDE START	55 51.6	55 41.6	55 31.9	55 27.6	55 32.9	55 38.8	55 42.9	55 14.3	55 18.4	55 24.3	55 23.5
LONGITUDE START	155 56.0	155 43.2	155 51.3	155 42.1	155 37.6	155 6.5	155 18.2	156 51.5	156 43.2	156 25.6	156 35.5
LATITUDE END	55 51.5	0 0.0	55 32.2	55 28.3	55 33.8	55 38.8	55 42.0	55 14.4	55 17.7	55 24.1	55 22.9
LONGITUDE END	155 53.3	0 0.0	155 48.6	155 42.2	155 36.0	155 3.9	155 16.5	156 51.4	156 42.2	156 25.1	156 34.5
LORAN START	44550.20		44570.80	44530.30	44490.80	44297.60	44351.30	44965.70	44908.10	44790.80	44850.90
LORAN START	33105.80		33173.20	33172.00	33144.10	33064.30	33070.00	33355.30	33324.10	33267.80	33290.10
LORAN END	44534.40		44555.60	44529.60	44478.40	44283.10	44344.40	44965.20	44903.80	44788.60	44846.70
LORAN END	33101.30		33167.10	33170.00	33137.20	33059.50	33070.10	33354.90	33324.60	33267.40	33290.40
GEAR DEPTH	42	56	122	141	112	277	83	56	55	105	79
DURATION IN HOURS	0.50	0.00	0.50	0.25	0.50	0.50	0.40	0.05	0.33	0.08	0.25
DISTANCE FISHED	1.52	0.00	1.45	0.63	1.38	1.47	1.21	0.09	0.87	0.26	0.78
PERFORMANCE / GEAR	0 /172	5 /172	0 /172	7 /172	0 /172	0 /172	0 /172	6 /172	7 /172	5 /172	0 /172
POLLOCK	0.0	0.0	221.4	3.6	851.1	0.0	4.5	0.0	0.0	0.7	1.4
PACIFIC COD	0.0	0.0	16.8	0.0	117.5	0.0	43.5	0.0	0.0	0.0	0.0
SABLEFISH	0.0	0.0	32.4	0.0	392.7	0.0	3.4	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	0.0	0.0	165.1	0.0	252.9	0.0	418.4	0.0	0.0	32.2	28.6
HALIBUT	120.7	0.0	0.0	115.8	31.8	0.0	10.5	0.0	0.0	0.0	44.8
FLATHEAD SOLE	0.0	0.0	8.4	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
DOVER SOLE	0.0	0.0	5.4	0.9	18.9	2.7	3.2	0.0	0.0	4.1	0.0
REX SOLE	0.0	0.0	37.9	0.0	32.4	0.0	33.1	0.0	0.0	18.6	0.0
ROCK SOLE	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	18.6	17.9	325.5	0.0	0.0	0.0	311.2	0.7	1.1
ROUGHEYE RKFH	0.0	0.0	3.4	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
THORNYHEADS	0.0	0.0	0.0	0.2	0.0	4.8	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.9	0.4	0.5	0.0	1.4	0.0	6032.8	1.0	1.1
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	1.4	2.7	3.9	0.0	0.0	0.0	6.4	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	4.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	14.1	9.1	0.0	0.1	6.8	0.0	0.0	0.0	2.2
SKATES	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	155	156	157	158	159	160	161	162	163	164	165
MONTH/DAY/YEAR	7/15/90	7/15/90	7/15/90	7/16/90	7/16/90	7/16/90	7/16/90	7/17/90	7/17/90	7/17/90	7/17/90
LATITUDE START	55 30.1	55 26.4	55 22.8	56 4.6	56 0.7	55 56.1	56 1.4	56 21.8	56 16.8	56 13.0	56 17.4
LONGITUDE START	156 17.7	156 1.7	155 53.1	154 45.2	154 17.3	154 1.3	154 1.3	154 31.0	155 3.1	155 14.7	155 34.8
LATITUDE END	55 29.6	55 26.1	55 23.4	56 5.9	56 0.6	55 55.7	56 2.9	56 20.3	56 16.8	56 11.9	56 16.9
LONGITUDE END	156 15.3	155 59.1	155 53.7	154 44.1	154 15.3	154 3.8	154 1.6	154 32.3	155 3.5	155 14.6	155 37.3
LORAN START	44731.00	44645.90	44606.40	44097.80	43955.50	43888.20	43868.20	43964.90	44168.70	44248.60	44361.20
LORAN START	33230.90	33213.60	33210.80	32925.00	32892.60	32883.20	32862.60	32832.70	32906.90	32943.50	32961.00
LORAN END	44717.70	44631.70	44608.20	44087.40	43945.30	43903.00	43864.00	43975.80	44171.00	44250.30	44377.70
LORAN END	33227.80	33209.80	33209.90	32917.80	32889.40	32889.40	32857.00	32839.00	32907.50	32947.50	32967.60
GEAR DEPTH	116	110	112	67	75	186	76	22	15	16	36
DURATION IN HOURS	0.50	0.50	0.20	0.50	0.37	0.50	0.50	0.40	0.08	0.33	0.50
DISTANCE FISHED	1.44	1.51	0.60	1.45	1.07	1.50	1.57	1.22	0.22	1.04	1.47
PERFORMANCE / GEAR	0 /172	0 /172	1 /172	0 /172	0 /172	0 /172	0 /172	0 /172	1 /172	0 /172	0 /172
POLLOCK	118.2	24.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.1	0.0
PACIFIC COD	6.4	18.1	0.0	12.0	3.6	0.0	1.8	0.4	0.0	0.1	7.0
SABLEFISH	397.3	18.1	0.0	0.0	0.0	44.7	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	311.6	23.4	1.6	614.2	893.3	15.5	98.0	0.0	0.0	0.0	0.0
HALIBUT	0.0	0.0	36.9	27.6	125.1	0.0	133.6	41.6	0.0	5.8	207.7
FLATHEAD SOLE	21.1	2.5	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DOVER SOLE	26.3	2.7	0.0	2.7	0.0	25.2	0.0	0.0	0.0	0.0	0.0
REX SOLE	141.3	9.1	0.0	10.0	11.8	0.9	2.3	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	0.0	6.1	0.0	15.0	0.7	0.0	0.0	552.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	41.5
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	148.1	6.4	8.6	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	6.8	0.9	0.0	0.0	0.0	631.6	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	131.9	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	46.7	11.3	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	115.1	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	1.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	24.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	2.5	0.0	0.1	0.0	0.0	5.8	3.9	0.0	0.0	0.0	4.5
SKATES	0.0	0.0	0.0	0.1	0.0	0.0	18.1	5.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	166	167	168	169	170	171	172	173	174	175	176
MONTH/DAY/YEAR	7/17/90	7/17/90	7/18/90	7/18/90	7/18/90	7/18/90	7/18/90	7/23/90	7/25/90	7/25/90	7/25/90
LATITUDE START	56 17.6	56 32.8	56 37.1	56 38.8	56 44.2	56 49.6	56 54.9	57 33.4	57 24.8	57 8.5	56 57.0
LONGITUDE START	155 51.8	155 26.4	155 42.7	155 25.5	155 18.6	155 19.4	155 1.0	151 42.0	152 37.0	152 36.5	153 4.2
LATITUDE END	56 19.1	56 34.0	56 37.1	56 40.2	56 45.4	56 51.0	56 56.4	57 32.4	57 24.8	57 8.5	56 56.7
LONGITUDE END	155 52.2	155 24.3	155 39.8	155 24.2	155 18.2	155 19.0	154 59.8	151 42.2	152 37.0	152 36.5	153 6.7
LORAN START	44467.20	44276.80	44373.70	44259.80	44206.70	44203.90	44076.60	43011.90			43348.20
LORAN START	32991.10	32879.70	32890.00	32851.80	32816.10	32793.40	32737.70	32269.70			18714.00
LORAN END	44466.50	44261.00	44354.60	44248.90	44202.00	44199.00	44066.70	43009.70			43362.80
LORAN END	32985.30	32870.80	32885.10	32843.00	32809.70	32786.10	32729.10	32273.90			18713.70
GEAR DEPTH	73	42	130	88	98	128	47	77	55	60	76
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.40	0.50	0.50	0.26	0.50	0.50	0.50
DISTANCE FISHED	1.54	1.67	1.66	1.64	1.30	1.47	1.59	0.77	1.60	1.60	1.38
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	1 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	107.5	519.0	75.4	259.2	0.0	567.0	225.0	14.9	548.8
PACIFIC COD	548.9	532.7	7.7	94.7	308.4	33.8	272.3	77.1	38.1	65.7	54.4
SABLEFISH	92.5	0.0	66.7	13.9	3.4	30.4	0.0	0.0	0.0	14.9	0.0
ARROWTOOTH FL.	2936.5	3478.5	310.7	3108.2	609.7	513.0	4918.1	179.6	296.2	613.2	122.9
HALIBUT	50.6	25.1	0.0	124.4	24.0	22.3	155.0	0.0	39.0	14.6	0.0
FLATHEAD SOLE	36.2	145.7	25.4	94.7	116.0	43.3	37.7	36.7	700.8	66.3	30.4
DOVER SOLE	11.1	9.4	6.6	55.5	14.3	10.0	50.3	35.8	0.0	54.3	17.2
REX SOLE	21.1	63.0	1.4	27.8	0.4	2.0	9.2	96.2	0.0	123.7	86.6
ROCK SOLE	0.0	10.9	0.0	0.0	0.0	0.0	0.0	0.0	0.5	9.2	3.6
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	42.6	0.6	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	9.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	3.3	10.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	8.6	17.9	0.0	0.0	4.3	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	17.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	18.6	5.0	0.0	2.3	4.3	10.8	87.1
SKATES	0.0	0.0	6.1	176.3	5.3	9.1	0.0	0.0	120.7	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.5	0.0	0.1	0.0	0.0	0.0	0.5	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	1.5	2.7	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	1.1	0.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	177	178	179	180	181	182	183	184	185	186	187
MONTH/DAY/YEAR	7/25/90	7/26/90	7/26/90	7/27/90	7/27/90	7/27/90	7/27/90	7/28/90	7/28/90	7/28/90	7/28/90
LATITUDE START	56 50.2	56 45.4	56 45.2	56 50.3	56 39.0	56 21.5	56 16.1	56 5.3	56 8.7	56 17.0	56 37.9
LONGITUDE START	153 29.8	153 44.4	154 23.4	154 9.4	153 46.6	153 35.0	153 53.2	153 43.2	153 25.7	152 50.3	152 33.3
LATITUDE END	56 49.8	56 46.2	56 46.2	56 48.9	56 41.1	56 20.8	56 17.9	56 3.7	56 9.9	56 19.1	56 40.2
LONGITUDE END	153 31.4	153 42.1	154 21.2	154 11.4	153 46.9	153 31.9	153 54.2	153 41.6	153 24.5	152 49.4	152 33.0
LORAN START	43516.50	43617.60	18702.40	18706.90	18699.10	18685.00	18678.80	18669.20	18673.90	32686.30	18701.90
LORAN START	18708.40	18704.20	43854.30	43754.90	43651.40	43653.70	43770.00	43760.60	43661.40	43466.10	43297.10
LORAN END	43527.10	43601.10	18703.30	18705.80	18700.80	18684.60	18680.40	18667.70	18675.20	18686.00	18703.60
LORAN END	18708.00	18704.90	43838.20	43770.70	43645.70	43640.90	43769.00	43759.30	43650.20	43452.60	43284.70
GEAR DEPTH	32	40	33	28	62	39	59	116	189	60	72
DURATION IN HOURS	0.40	0.48	0.50	0.50	0.50	0.50	0.50	0.40	0.50	0.50	0.46
DISTANCE FISHED	0.98	1.47	1.58	1.75	2.16	1.83	1.89	1.50	1.44	2.16	2.12
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.1	0.4	186.2	1089.5	2794.1	0.0	0.0	122.7	1.8	0.0	788.8
PACIFIC COD	0.0	788.6	2.7	57.7	147.2	0.0	0.0	43.5	0.0	0.0	15.9
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	15.9	82.8	0.0	0.0
ARROWTOOTH FL.	0.0	44.0	50.3	39.6	404.3	0.0	5.9	342.9	94.3	0.0	466.7
HALIBUT	84.2	29.7	49.1	139.3	74.4	151.5	18.8	11.1	0.0	154.0	57.2
FLATHEAD SOLE	0.0	15.0	259.0	101.8	159.7	0.0	0.0	15.0	0.5	0.0	16.8
DOVER SOLE	0.0	0.9	0.0	0.0	69.1	0.0	0.0	30.4	22.7	0.0	23.4
REX SOLE	0.0	0.1	0.0	0.0	60.6	0.0	0.0	213.6	6.4	0.0	216.8
ROCK SOLE	12.9	194.8	0.0	0.0	69.1	1.8	7.9	0.0	0.0	11.4	0.5
STARRY FLOUNDER	0.0	43.1	34.5	40.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	93.0	0.5	0.0	27.2	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	5.0	13.6	21.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.9	38.6	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	69.9	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9	31.8	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	5899.5	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	2.8	0.0	0.0	0.0	11.3	0.0	1038.4	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.7	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	1.1	5.0	3.4	32.3	0.1	0.0	10.7	0.0	0.0	5.0
SKATES	0.0	0.0	20.9	48.7	69.1	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
KING CRAB	0.0	46.7	0.0	9.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	0.0	0.0
SCALLOP	0.1	0.0	0.5	0.0	0.0	1.0	0.7	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	188	189	190	191	192	193	194	195	196	197	198
MONTH/DAY/YEAR	7/28/90	7/29/90	7/29/90	7/29/90	7/29/90	7/29/90	7/29/90	7/30/90	7/30/90	7/30/90	7/30/90
LATITUDE START	56 40.7	56 42.8	56 52.7	56 47.5	56 54.0	56 54.7	56 58.8	57 12.1	57 17.2	57 22.7	57 22.4
LONGITUDE START	152 38.7	153 10.2	153 19.5	153 1.7	152 26.2	152 7.7	152 36.3	152 56.5	152 29.0	152 27.8	151 51.5
LATITUDE END	56 44.3	56 43.4	56 52.7	56 46.3	56 54.8	56 55.6	56 59.0	57 11.5	57 18.6	57 21.4	57 23.5
LONGITUDE END	152 39.4	153 12.6	153 16.8	153 0.1	152 23.7	152 5.2	152 39.1	152 59.3	152 28.0	152 25.5	151 50.0
LORAN START	18703.70	32612.40	32584.80	32579.50	32499.40	32469.70	32493.90	32466.00	32404.10	32378.60	
LORAN END	43304.10	43438.80	43449.30	43375.40	43188.60	43128.50	43203.10	43249.70	43077.70	43046.30	
LORAN END	18706.30	32613.60	32580.50	32582.10	32492.40	32462.40	32497.30	32472.90	32396.60	32380.90	
LORAN END	43288.80	43448.70	43433.90	43372.70	43175.60	43117.90	43214.50	43268.50	43066.10	43040.60	
GEAR DEPTH	39	86	86	39	85	42	85	69	55	35	37
DURATION IN HOURS	0.50	0.50	0.48	0.50	0.42	0.50	0.45	0.50	0.50	0.53	0.50
DISTANCE FISHED	1.60	1.47	1.45	1.51	1.34	1.62	1.40	1.66	1.50	1.79	1.60
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	703.9	1434.8	0.2	1896.0	0.0	1049.6	395.8	262.6	1.6	1.4
PACIFIC COD	0.0	59.2	18.1	0.0	117.9	275.3	0.0	123.0	49.0	68.9	53.1
SABLEFISH	0.0	0.0	0.0	0.0	27.2	0.0	26.1	0.0	0.0	2.3	0.0
ARROWTOOTH FL.	0.0	423.7	514.1	0.0	928.4	7.5	3065.5	405.5	191.9	123.4	17.7
HALIBUT	47.9	12.6	111.5	25.0	109.7	55.5	25.4	0.0	22.8	40.5	86.7
FLATHEAD SOLE	0.0	56.0	45.4	0.0	34.8	0.0	160.4	2526.9	210.9	40.8	0.0
DOVER SOLE	0.0	7.9	3.0	0.0	102.8	0.0	60.1	0.0	0.0	0.0	0.0
REX SOLE	0.0	3.9	30.3	0.0	181.4	0.0	16.1	0.0	0.0	4.8	0.0
ROCK SOLE	8.2	0.0	21.3	5.0	0.0	36.5	0.0	1.5	95.3	228.6	340.9
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	72.6	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	20.4	0.0
BUTTER SOLE	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	5.9	413.2	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	67.6	0.0	0.0	30.3	0.0	70.8	11.5	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.6	6.3	117.9	0.0	0.0	2.0	0.0	4.8	0.5	0.5	0.0
SKATES	0.0	0.0	30.3	0.0	0.0	0.0	0.0	109.5	98.4	2.9	14.5
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.9	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	32.7	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	199	200	201	202	203	204	205	206	207	208	209
MONTH/DAY/YEAR	7/30/90	8/ 3/90	8/ 3/90	8/ 3/90	8/ 3/90	8/ 4/90	8/ 4/90	8/ 4/90	8/ 4/90	8/ 4/90	8/ 5/90
LATITUDE START	57 24.5	57 48.6	57 50.4	57 54.1	57 55.9	57 13.4	56 55.6	57 5.4	57 25.8	57 31.1	57 36.0
LONGITUDE START	151 32.6	151 42.6	151 33.1	150 54.3	150 27.8	151 23.0	151 30.8	151 11.4	150 46.6	150 9.0	150 8.8
LATITUDE END	57 26.1	57 47.2	57 52.2	57 53.1	57 57.3	57 11.8	56 56.9	57 6.0	57 27.0	57 32.0	57 37.4
LONGITUDE END	151 32.6	151 43.0	151 32.7	150 52.1	150 27.5	151 23.8	151 29.9	151 9.0	150 48.7	150 7.0	150 8.1
LORAN START		11378.90	11436.30	11644.20	11782.10	11254.10	11189.60	11288.40	11488.30	11705.30	11735.10
LORAN START		31301.00	31297.30	31261.20	31230.50	31080.90	30999.30	31019.10	31089.40	31056.10	31084.00
LORAN END		11363.90	11455.00	11645.60	11794.70	11246.10	11194.10	11301.10	11484.00	11720.20	11747.50
LORAN END		31294.00	31306.80	31252.00	31238.20	31073.40	31005.00	31018.10	31099.10	31057.80	31091.00
GEAR DEPTH	40	28	34	43	85	60	161	196	53	201	153
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.42	0.47	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	1.60	1.42	1.84	1.55	1.19	1.57	1.44	1.44	1.59	1.39	1.48
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	0.0	0.0	5.9	40.8	0.0	0.0	1.4	0.0	210.0
PACIFIC COD	133.4	0.0	2.7	21.3	61.2	538.9	0.0	0.0	1.4	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	33.1	40.8	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	50.8	4.1	2.3	676.8	1084.5	402.3	4.5	8.6	2.3	0.0	7.7
HALIBUT	98.4	337.2	837.4	308.7	52.9	270.4	0.0	0.0	67.8	0.0	0.0
FLATHEAD SOLE	0.0	0.0	0.0	0.0	15.4	0.0	0.0	0.0	0.0	0.0	0.1
DOVER SOLE	0.0	0.0	0.0	0.0	40.4	0.0	2.7	19.5	0.0	0.5	6.8
REX SOLE	0.0	0.0	0.0	0.0	81.6	0.0	2.7	10.4	0.0	0.0	7.7
ROCK SOLE	72.6	9.1	14.5	81.2	0.0	84.8	0.0	0.0	80.7	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	78.5	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.5	0.0	0.0	103.9
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	4.1	214.5	0.0	11.3	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	2.5	18.6	0.0	0.0	4.5
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	5.0	0.5	0.0	0.0	0.2	2.7	0.0	0.0	0.9
SKATES	0.0	0.0	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	210	211	212	213	214	215	216	217	218	219	220
MONTH/DAY/YEAR	8/ 5/90	8/ 5/90	8/ 5/90	8/ 5/90	8/ 5/90	8/ 6/90	8/ 6/90	8/ 6/90	8/ 6/90	8/ 6/90	8/ 7/90
LATITUDE START	57 45.8	57 50.8	57 50.9	58 5.8	58 10.2	58 10.6	58 20.5	58 20.6	58 20.7	58 20.5	58 25.3
LONGITUDE START	150 0.9	150 19.4	150 9.4	149 31.8	149 39.4	149 13.0	149 30.8	149 2.0	148 31.7	148 44.2	149 3.5
LATITUDE END	57 47.4	57 52.0	57 52.5	58 4.7	58 8.9	58 12.2	58 21.5	58 22.1	58 22.2	58 21.9	58 26.4
LONGITUDE END	150 1.1	150 21.3	150 9.7	149 33.7	149 37.3	149 13.2	149 28.9	149 0.5	148 30.9	148 44.9	149 5.5
LORAN START	11837.20	11783.30	11832.20	12121.80	12121.60	12246.50	12245.20	12376.10	12513.10	12455.10	12407.60
LORAN START	31128.20	31187.50	31172.10	31200.20	31239.60	31199.10	31289.90	31244.60	31193.60	31213.40	31276.70
LORAN END	11847.50	11783.10	11842.20	12104.50	12120.50	12257.70	12262.50	12395.00	12528.50	12463.80	12408.10
LORAN END	31137.70	31197.90	31181.90	31196.60	31228.30	31209.20	31293.50	31251.40	31202.10	31224.20	31287.40
GEAR DEPTH	100	79	107	125	64	63	89	69	177	71	64
DURATION IN HOURS	0.50	0.46	0.42	0.50	0.50	0.47	0.44	0.50	0.50	0.45	0.44
DISTANCE FISHED	1.58	1.50	1.34	1.49	1.69	1.46	1.28	1.68	1.56	1.38	1.40
PERFORMANCE / GEAR	5 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	1028.1	6032.3	0.0	0.0	185.5	0.1	1.4	1.8	0.0
PACIFIC COD	0.0	147.0	4.8	0.0	68.5	0.0	70.3	0.9	0.0	78.4	0.9
SABLEFISH	0.0	0.0	29.4	595.8	0.0	0.0	113.9	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	3.2	1163.5	167.0	341.8	5610.9	0.0	258.5	29.5	4.1	0.0	1.4
HALIBUT	0.0	72.2	38.7	589.8	188.8	16.4	72.3	319.1	0.0	104.2	199.5
FLATHEAD SOLE	0.1	57.2	20.7	39.2	1.8	0.0	82.1	0.0	0.0	0.0	0.0
DOVER SOLE	0.9	3.6	44.5	14.0	0.0	0.0	280.8	0.0	10.4	0.0	0.0
REX SOLE	1.8	66.7	77.1	134.3	0.0	0.0	164.2	0.0	2.3	0.0	0.0
ROCK SOLE	0.0	14.1	0.0	0.0	162.4	41.3	0.0	15.0	0.0	0.0	13.6
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	10.4	2.0	23.0	17.4	0.0	10.8	5.9	10.4	0.0	87.5	0.9
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	10.0	1.8	1.6
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	18.1	637.9	0.0	32.7	0.0	1392.8	377.4
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	18.1	32.7	310.5	4.1	0.0	0.0	207.8	138.8
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	484.7	0.0	0.0	0.0	811.2	18.6
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	0.5	282.5	4.1
OTHER RF	0.0	0.0	0.0	0.0	0.0	5.8	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.1	0.0	62.4	0.0	0.0	8.1	0.0	0.9	0.0	0.0
SKATES	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	221	222	223	224	225	226	227	228	229	230	231
MONTH/DAY/YEAR	8/ 7/90	8/ 7/90	8/ 7/90	8/ 7/90	8/ 7/90	8/ 7/90	8/ 8/90	8/ 8/90	8/ 8/90	8/ 8/90	8/10/90
LATITUDE START	58 30.1	58 30.4	58 34.9	58 40.0	58 39.8	58 33.6	58 38.9	58 33.9	58 60.0	59 3.8	59 59.9
LONGITUDE START	149 23.0	150 1.1	150 39.4	150 49.3	151 17.5	151 25.7	151 38.9	151 56.4	151 59.0	152 27.7	151 48.3
LATITUDE END	58 30.2	58 31.5	58 35.4	58 40.1	58 39.9	58 32.2	58 38.6	58 34.5	59 1.1	59 4.5	59 59.2
LONGITUDE END	149 26.1	150 3.7	150 42.3	150 52.2	151 18.4	151 23.8	151 41.3	151 58.8	152 3.9	152 30.5	151 48.8
LORAN START	12361.70	12199.50	12085.00	12097.40	11995.40	11903.00	11917.40	11812.70	12088.80	12063.30	12749.00
LORAN START	31338.20	31397.40	31477.50	31520.10	31554.70	31529.30	31575.20	31567.60	31715.30	31764.90	32041.00
LORAN END	12349.60	12198.30	12078.60	12087.60	11992.70	11894.60	11906.50	11813.70	12088.10	12064.70	12739.70
LORAN END		31407.50	31484.10	31524.60	31556.00	31518.90	31576.10	31574.10	31726.20	31771.30	32037.10
GEAR DEPTH	67	59	106	108	101	89	77	85	108	72	11
DURATION IN HOURS	0.45	0.50	0.38	0.40	0.22	0.50	0.50	0.50	0.50	0.50	0.18
DISTANCE FISHED	1.47	1.70	1.18	1.24	0.48	1.73	1.30	1.42	2.73	1.61	0.81
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	7 /172	0 /172	0 /172	5 /172	5 /172	0 /172	1 /172
POLLOCK	0.0	0.0	29.6	153.0	0.0	382.8	8.2	6.8	9.5	239.5	0.0
PACIFIC COD	4.3	68.2	11.3	116.0	0.0	66.7	31.8	0.0	0.0	56.7	6.8
SABLEFISH	0.0	50.2	22.6	630.0	0.0	317.6	67.6	0.0	0.0	29.9	0.0
ARROWTOOTH FL.	110.2	1136.3	742.3	218.0	0.0	595.3	66.5	0.0	0.0	776.5	0.0
HALIBUT	56.9	26.6	15.2	104.4	0.0	0.0	10.3	0.0	0.0	86.6	0.4
FLATHEAD SOLE	0.0	6.3	132.7	4.4	0.0	1.5	0.0	0.0	0.0	0.5	0.0
DOVER SOLE	0.0	40.4	156.7	26.8	0.0	13.8	4.5	0.0	0.0	4.5	0.0
REX SOLE	11.8	30.5	31.0	7.0	0.0	20.7	2.3	0.0	0.0	0.4	0.0
ROCK SOLE	3.6	67.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.3
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
PAC OC PERCH	0.0	0.9	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.6	0.0
ROUGHEYE RKFH	0.7	0.0	6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	2.7	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0
HARLEQUIN	0.5	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
SHARPCHIN	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	2.7	17.2	12.7	0.0	0.4	0.7	0.1	0.0	3.8	1.5
SKATES	0.0	15.2	14.1	0.0	0.0	0.0	0.0	0.0	0.0	11.8	36.7
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.6
PINK SHRIMP	0.0	0.0	14.1	1.9	0.0	3.9	2.3	0.0	0.0	0.2	0.0
SIDE STRIPE SHRIMP	0.0	0.0	1.5	1.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	232	233	234	235	236	237	238	239	240	241	242
MONTH/DAY/YEAR	8/10/90	8/10/90	8/10/90	8/12/90	8/12/90	8/12/90	8/12/90	8/12/90	8/12/90	8/12/90	8/12/90
LATITUDE START	59 53.1	59 53.1	59 32.7	59 7.5	58 57.4	58 52.8	58 42.0	58 32.3	58 37.7	58 26.6	58 16.9
LONGITUDE START	152 10.5	152 28.5	152 47.3	153 23.0	153 11.9	152 52.5	153 3.8	152 52.5	153 29.6	153 20.7	153 29.4
LATITUDE END	59 51.8	59 52.1	59 31.3	59 8.6	58 56.5	58 52.1	58 40.4	58 30.9	58 38.4	58 25.2	58 15.5
LONGITUDE END	152 12.5	152 26.5	152 47.6	153 21.5	153 9.0	152 49.9	153 5.0	152 53.6	153 27.5	153 21.6	153 30.6
LORAN START	12621.70	12579.00	12328.70	12009.30	11919.50	11900.30	11769.70	11682.00	11699.50	11594.70	11494.50
LORAN START	32019.20	32031.80	31937.10	31835.30	31772.90	31730.60	31685.10	31622.70	31689.10	31623.80	31583.90
LORAN END	12603.30	12572.80	12313.10	12022.30	11914.20	11897.20	11751.90	11665.20	11708.70	11579.80	11480.30
LORAN END	32013.50	32024.80	31929.70	31839.40	31765.60	31724.40	31678.30	31616.40	31690.90	31617.50	31577.90
GEAR DEPTH	39	23	29	25	80	92	89	108	19	104	97
DURATION IN HOURS	0.20	0.50	0.50	0.50	0.40	0.43	0.42	0.50	0.50	0.38	0.40
DISTANCE FISHED	1.66	1.45	1.46	1.35	1.39	1.28	1.40	1.55	1.31	1.15	1.26
PERFORMANCE / GEAR	5 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	4.5	1.6	4.1	8.2	156.0	67.1	46.7	270.3	5.4	139.7	43.1
PACIFIC COD	3.4	15.4	6.8	8.6	83.9	127.9	28.6	13.2	11.3	22.2	58.1
SABLEFISH	0.0	0.0	0.0	0.0	1.1	0.0	0.9	0.0	2.9	0.0	1.8
ARROWTOOTH FL.	0.0	0.5	0.9	2.3	170.6	248.6	205.5	164.2	13.6	207.5	322.0
HALIBUT	0.0	0.0	20.5	19.8	0.0	18.2	1.3	0.0	63.8	17.7	0.0
FLATHEAD SOLE	0.0	0.0	2.7	7.7	16.8	20.0	12.2	15.0	6.4	22.2	75.7
DOVER SOLE	0.0	0.0	0.0	0.0	8.2	47.2	8.2	0.0	0.0	0.0	0.9
REX SOLE	0.0	0.0	0.0	0.0	2.7	3.2	5.2	0.0	0.2	0.0	1.4
ROCK SOLE	1.8	0.4	1.8	14.5	0.2	0.0	0.0	0.0	2.5	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	36.7	0.0	0.0	0.0	0.0	69.9	0.0	0.0
YELLOWFIN SOLE	1.8	0.0	4.5	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0
BUTTER SOLE	0.0	0.0	3.2	0.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	12.2	0.0	0.0	0.0	0.0	31.8	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	9.5	8.2	0.9	0.0	0.0	0.9
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.3	0.6	0.7	0.7	3.2	6.8	1.2	0.5	0.5	0.7
SKATES	0.0	0.0	0.0	0.0	0.0	11.3	10.0	0.0	0.0	4.8	0.0
SHARKS	0.0	0.0	5.0	10.0	75.7	0.0	0.0	0.0	7.7	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	2.3
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	4.5	10.7	5.2	0.0	7.3	14.5
SIDE STRIPE SHRIMP	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.5	0.0	1.1	0.2
SCALLOP	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	243	244	245	246	247	248	249	250	251	252	253
MONTH/DAY/YEAR	8/13/90	8/13/90	8/13/90	8/13/90	8/13/90	8/14/90	8/14/90	8/15/90	8/15/90	8/15/90	8/15/90
LATITUDE START	58 17.4	58 7.0	57 44.0	57 28.7	57 21.0	56 40.9	56 51.9	57 10.0	57 52.7	58 1.2	57 55.4
LONGITUDE START	153 47.7	154 21.1	154 59.1	155 38.8	156 6.1	156 13.8	155 56.1	154 42.7	154 22.8	153 56.2	153 12.9
LATITUDE END	58 18.9	58 5.6	57 42.8	57 28.7	57 21.0	56 41.9	56 52.6	57 10.8	57 52.3	58 1.6	57 56.5
LONGITUDE END	153 47.3	154 20.1	155 1.6	155 38.8	156 6.1	156 12.7	155 53.7	154 43.6	154 13.4	153 53.4	153 15.0
LORAN START	11496.80	11418.60	11295.20	18730.40	18725.60	18693.80	18704.30	18719.80	18740.00	11358.30	11290.70
LORAN START	31606.10	31590.80	31524.10	44312.50	44493.30	44570.10	44441.20	43939.90	43828.10	31535.60	31458.00
LORAN END	11510.50	11407.80	11291.30	18730.40	18725.60	18694.80	18705.00	18720.30	11305.00	11360.40	11300.80
LORAN END	31613.00	31583.50	31521.60	44312.50	44493.30	44561.60	44424.70	43945.80	31513.80	31534.60	31465.60
GEAR DEPTH	116	83	159	65	17	108	159	38	117	111	88
DURATION IN HOURS	0.40	0.45	0.28	0.50	0.42	0.50	0.50	0.50	0.50	0.33	0.42
DISTANCE FISHED	1.21	1.27	0.99	1.60	1.26	1.18	1.50	0.96	1.60	1.01	1.22
PERFORMANCE / GEAR	0 /172	0 /172	1 /172	1 /172	7 /172	0 /172	0 /172	7 /172	0 /172	1 /172	0 /172
POLLOCK	96.2	981.1	89.4	0.2	0.0	93.9	125.2	0.0	88.9	216.8	64.4
PACIFIC COD	6.8	15.4	24.9	22.2	0.0	24.0	0.0	0.0	30.8	5.9	1.1
SABLEFISH	5.9	0.0	38.6	0.0	0.0	38.1	0.0	0.0	7.3	2.7	0.0
ARROWTOOTH FL.	152.9	176.9	145.1	518.9	0.0	329.8	3.2	0.0	576.5	48.5	169.2
HALIBUT	1.9	2.4	4.0	132.2	6.3	72.8	0.0	0.0	19.8	9.6	68.6
FLATHEAD SOLE	51.3	127.5	2.7	1.8	0.0	15.9	0.0	0.0	56.2	22.7	148.8
DOVER SOLE	0.7	1.4	0.0	12.7	0.0	8.6	0.9	0.0	0.0	0.0	2.7
REX SOLE	1.4	1.4	0.5	7.7	0.0	0.0	0.0	0.0	2.7	0.5	1.8
ROCK SOLE	0.0	0.9	0.0	15.4	0.0	5.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.4	0.0	41.7	0.0	45.4	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	1.8	105.2	3.9	0.0	0.0	4.1	0.0	0.0	18.6	4.1	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	21.3	0.0	0.5	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.5	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	1.4	0.0	0.2	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.6	0.8	0.4	13.0	0.0	15.5	0.0	0.0	0.3	0.0	2.0
SKATES	16.8	9.1	0.0	0.0	0.0	2.3	0.0	0.0	3.6	0.0	8.6
SHARKS	0.0	0.0	0.0	0.0	0.0	181.4	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	1.4	2.7	2.3	0.0	0.0	0.1	0.0	0.0	0.2	0.0	7.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	4.5	0.0	0.7	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	3.6	0.9	5.9	0.0	0.0	0.2	0.3	0.0	7.9	2.0	0.2
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	254	255	256	257	258	259	260	261	262	263	264
MONTH/DAY/YEAR	8/18/90	8/18/90	8/18/90	8/18/90	8/19/90	8/19/90	8/19/90	8/19/90	8/19/90	8/19/90	8/19/90
LATITUDE START	58 4.1	57 59.4	58 3.9	57 59.7	58 9.6	58 10.1	58 15.4	58 10.6	58 14.5	58 25.0	58 44.8
LONGITUDE START	152 16.4	152 4.2	151 55.4	151 24.6	151 56.3	151 33.3	151 25.2	151 15.5	151 4.4	150 47.0	150 19.2
LATITUDE END	58 5.2	58 0.9	58 3.3	57 59.8	58 8.9	58 11.1	58 17.0	58 12.4	58 14.3	58 25.1	58 46.0
LONGITUDE END	152 12.6	152 3.7	151 56.7	151 21.3	151 52.7	151 31.3	151 25.7	151 15.1	151 2.6	150 43.4	150 17.3
LORAN START	11435.00	11414.70	11489.70	11560.10	11549.50	11629.70	11714.40	11702.40	11785.40	11957.60	12261.20
LORAN START	31430.40	31389.30	31401.90	31336.70	31434.40	31406.40	31425.60	31385.00	31392.20	31429.10	31510.00
LORAN END	11452.60	11427.80	11474.50	11567.60	11547.90	11647.60	11729.30	11722.30	11790.60	11873.40	12280.40
LORAN END	31433.30	31398.40	31402.20	31334.50	31427.60	31409.40	31435.30	31394.80	31388.40	31424.90	31514.80
GEAR DEPTH	97	96	73	43	30	68	84	74	61	42	80
DURATION IN HOURS	0.50	0.43	0.50	0.27	0.37	0.50	0.40	0.46	0.30	0.48	0.42
DISTANCE FISHED	1.66	1.32	1.59	0.92	1.25	1.48	1.64	1.66	0.85	1.77	1.36
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	645.5	981.8	1783.9	0.0	1.4	0.0	0.8	2833.4	0.0	0.0	0.0
PACIFIC COD	40.4	44.0	10.8	139.3	23.6	13.2	29.0	80.3	186.1	108.4	93.2
SABLEFISH	0.0	29.9	55.8	0.0	0.0	0.0	125.2	61.4	0.0	0.0	530.2
ARROWTOOTH FL.	501.7	205.9	1009.7	793.3	3.2	496.2	221.4	1912.6	1232.5	18.6	675.1
HALIBUT	18.2	24.2	27.1	22.7	77.8	33.7	6.4	195.0	107.0	147.1	70.1
FLATHEAD SOLE	176.9	32.7	189.9	2.3	0.0	2.3	2.3	42.5	1.7	0.0	2.0
DOVER SOLE	4.5	3.6	0.0	0.0	0.0	0.5	2.3	94.4	3.7	0.0	27.8
REX SOLE	0.0	0.0	1.1	0.0	0.0	0.0	7.7	146.4	1.7	0.0	19.9
ROCK SOLE	0.0	0.0	0.0	134.7	240.4	19.5	0.5	0.0	53.7	48.5	2.6
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
ROUGHEYE RKFH	5.4	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	10.9
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	3.2
HARLEQUIN	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.5
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.1	0.0	14.0	0.9	3.3	0.8	0.0	0.0	0.0	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	51.9	0.0	0.0	23.8
SHARKS	0.0	112.0	0.0	0.0	0.0	0.0	0.0	0.0	10.1	0.0	0.0
TANNER CRAB	1.4	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNCENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	265	266	267	268	269	270	271	272	273	274	275
MONTH/DAY/YEAR	8/20/90	8/20/90	8/20/90	8/20/90	8/20/90	8/20/90	8/20/90	8/21/90	8/21/90	8/21/90	8/21/90
LATITUDE START	58 50.1	58 50.2	58 55.5	58 55.2	58 55.5	59 5.1	59 9.7	59 0.8	58 54.7	58 54.2	58 45.1
LONGITUDE START	150 28.0	150 40.1	150 57.6	150 28.3	150 27.8	150 20.2	150 10.9	150 8.2	150 9.1	149 40.3	149 39.3
LATITUDE END	58 50.4	58 51.3	58 56.5	58 55.3	58 56.6	59 6.5	59 10.9	-59 1.6	58 53.4	58 52.5	58 45.4
LONGITUDE END	150 30.5	150 42.5	150 56.5	150 28.2	150 25.8	150 18.6	150 9.4	150 5.5	150 7.3	149 40.3	149 36.6
LORAN START	12280.10	12234.80	12226.80	12329.70	12334.10	12460.00	12540.00	12461.80	12397.80	12508.10	12427.10
LORAN START	31553.80	31569.40	31622.10	31585.20	31586.00	31635.70	31652.60	31594.10	31557.30	31516.30	31457.60
LORAN END	12272.90	12237.00	12240.50	12330.30	12353.70	99999.90	12558.00	12480.20	12392.20	12492.30	12440.80
LORAN END	31558.70	31578.70	31626.30	31585.20	31590.30	99999.90	31658.40	31595.70	31547.20	31505.60	31455.60
GEAR DEPTH	84	88	85	74	72	98	73	107	101	132	111
DURATION IN HOURS	0.43	0.45	0.42	0.01	0.52	0.43	0.52	0.50	0.50	0.46	0.44
DISTANCE FISHER	1.38	1.43	1.11	0.01	1.60	1.32	1.46	1.62	1.56	1.40	1.19
PERFORMANCE / GEAR	0 / 172	0 / 172	1 / 172	5 / 172	1 / 172	0 / 172	0 / 172	0 / 172	0 / 172	1 / 172	0 / 172
POLLOCK	0.0	0.1	15.4	0.0	0.0	109.1	4.1	34.9	176.4	35.4	67.3
PACIFIC COD	82.1	38.1	55.3	0.0	0.0	32.2	68.9	30.4	6.4	3.6	22.2
SABLEFISH	205.3	39.5	78.5	0.0	0.0	2.1	24.5	77.1	217.3	344.3	839.1
ARROWTOOTH FL.	1274.2	670.7	162.4	0.0	173.0	47.2	364.2	62.6	253.1	110.7	1074.4
HALIBUT	228.1	20.1	0.0	0.0	249.3	0.0	150.2	21.0	97.3	0.0	77.0
FLATHEAD SOLE	0.0	1.8	10.4	0.0	0.5	0.7	0.7	4.8	0.9	4.5	80.4
DOVER SOLE	6.4	4.3	2.3	0.0	4.3	12.2	4.5	11.3	16.3	1.4	35.8
REX SOLE	12.8	11.1	5.9	0.0	2.0	8.6	5.9	0.2	15.9	11.8	23.0
ROCK SOLE	0.5	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.4	0.0	0.0	0.0	0.0	1.6	0.0	10.9	0.5	20.9
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	3.2	9.1	11.6
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.4
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.3	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.9	0.0	9.5
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.7	1.4	0.0	5.0
SHARKS	0.0	2.3	0.0	0.0	6.6	1.8	11.8	1.8	0.0	3.2	104.8
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	276	277	278	279	280	281	282	283	284	285	286
MONTH/DAY/YEAR	8/21/90	8/21/90	8/22/90	8/22/90	8/22/90	8/22/90	8/22/90	8/22/90	8/22/90	8/23/90	8/23/90
LATITUDE START	58 46.0	58 41.3	58 51.9	59 0.1	59 9.7	59 18.4	59 14.5	59 17.0	59 22.1	59 26.3	59 33.7
LONGITUDE START	149 30.1	149 29.2	148 31.0	148 16.7	148 4.1	147 12.6	147 5.7	147 4.5	146 54.5	146 34.3	146 52.8
LATITUDE END	58 46.1	58 42.2	58 52.5	59 0.3	59 11.3	59 18.9	59 15.4	59 18.2	59 23.1	59 26.6	59 35.3
LONGITUDE END	149 27.0	149 26.5	148 28.3	148 17.6	148 5.2	147 9.7	147 6.3	147 2.5	146 52.6	146 34.4	146 52.5
LORAN START	12474.20	12434.40	12777.40	12910.40	13049.10	13337.50	13331.30	13358.90	13444.20	13562.20	13554.70
LORAN START	31450.30	31418.70	31400.50	31434.10	31481.80	31462.50	31422.10	31439.00	31460.30	31458.10	31545.60
LORAN END	12487.40	12453.70	12794.10	12907.70	13059.00	13354.60	13337.40	13377.30	13460.70	13564.10	13570.50
LORAN END	31446.20	31420.20	31400.10	31436.50	31494.80	31462.00	31429.80	31444.40	31464.60	31460.60	31557.40
GEAR DEPTH	108	86	150	126	94	107	111	107	106	41	71
DURATION IN HOURS	0.42	0.50	0.23	0.09	0.46	0.42	0.29	0.44	0.44	0.08	0.50
DISTANCE FISHED	1.34	1.65	1.05	0.25	1.49	1.36	0.75	1.32	1.19	0.21	1.62
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	1 /172	0 /172	1 /172	1 /172	0 /172	0 /172	5 /172	0 /172
POLLOCK	24.0	127.9	9.1	9.5	78.0	54.9	8.8	38.1	39.0	0.0	3.2
PACIFIC COD	24.9	78.9	0.0	0.0	18.1	7.7	0.0	0.0	0.0	0.0	0.0
SABLEFISH	394.4	24.9	67.6	2.3	63.5	96.2	0.0	0.0	3.2	0.0	12.9
ARROWTOOTH FL.	170.6	411.0	44.9	4.1	409.6	98.9	0.0	0.0	85.7	0.0	172.8
HALIBUT	2.2	66.9	0.0	0.0	5.6	18.1	0.0	0.0	77.7	0.0	0.0
FLATHEAD SOLE	59.4	29.0	0.0	0.0	0.0	0.0	0.0	0.0	10.7	0.0	1.4
DOVER SOLE	37.6	112.8	31.3	2.7	117.9	131.1	0.0	0.0	68.5	0.0	15.0
REX SOLE	15.0	86.0	29.5	1.4	86.2	24.0	0.1	0.0	13.6	0.0	4.1
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	7.7	6.6	6.8	71.7	28.1	3.6	0.0	0.0	0.0	0.0	2.9
ROUGHEYE RKFH	16.6	1.6	3.6	2.3	0.0	2.3	0.0	0.0	56.2	0.0	22.2
THORNYHEADS	3.2	0.0	15.0	6.8	0.0	0.4	0.0	0.0	6.8	0.0	0.0
NORTHERN RKFH	0.0	0.5	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.1	0.5	0.1	1.0	0.0	0.0	0.0	0.0	0.3
SKATES	2.7	11.3	0.0	0.0	1.8	7.7	0.0	0.0	4.8	0.0	2.1
SHARKS	6.8	6.4	0.0	0.0	6.8	0.0	0.0	0.0	0.0	0.0	97.1
TANNER CRAB	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	287	288	289	290	291	292	293	294	295	296	297
MONTH/DAY/YEAR	8/23/90	8/23/90	8/23/90	8/23/90	8/23/90	8/23/90	8/24/90	8/24/90	8/24/90	8/24/90	8/24/90
LATITUDE START	59 32.5	59 28.2	59 29.1	59 38.2	59 29.7	59 25.9	59 9.1	59 10.1	59 18.6	59 5.1	59 5.5
LONGITUDE START	147 13.7	147 24.3	147 33.0	147 41.2	148 10.3	148 22.6	148 22.4	148 44.2	148 52.3	149 3.1	149 22.7
LATITUDE END	59 31.9	59 28.2	59 30.3	59 39.6	59 28.4	59 25.5	59 8.0	59 10.2	59 17.3	59 5.4	0 6.9
LONGITUDE END	147 16.4	147 27.4	147 33.3	147 42.5	148 12.0	148 22.6	148 23.9	148 47.1	148 53.9	149 6.5	0 23.8
LORAN START	13461.10	13379.70	13351.90	13403.20	13207.70	13122.50	12967.70	12887.50	12934.30	12762.40	12687.00
LORAN START	31569.90	31554.20	31573.40	31651.90	31631.60	31621.60	31504.90	31543.30	31611.90	31535.80	31565.30
LORAN END	13444.00	13366.70	13362.10	13411.40	13189.10	13101.70	12951.70	12876.00	12915.20	12752.40	12696.30
LORAN END	31569.10	31558.80	31582.90	31664.20	31624.80	31610.10	31499.40	31548.00	31604.90	31543.00	31576.00
GEAR DEPTH	114	66	64	64	115	78	65	82	91	84	0
DURATION IN HOURS	0.44	0.52	0.35	0.52	0.48	0.55	0.47	0.52	0.45	0.46	0.42
DISTANCE FISHED	1.31	1.61	1.09	1.58	1.53	1.89	1.20	1.54	1.37	1.54	1.35
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	134.3	0.0	1.3	24.0	105.7	8.6	0.3	16.3	32.7	28.3	0.5
PACIFIC COD	0.0	3.4	0.0	0.0	0.0	0.0	13.6	0.0	12.2	325.7	56.0
SABLEFISH	78.9	5.2	0.0	3.6	77.6	1.8	5.4	13.6	0.5	13.2	38.6
ARROWTOOTH FL.	92.1	257.0	28.1	442.7	105.0	163.7	281.7	135.2	493.1	206.8	553.4
HALIBUT	0.0	21.6	0.0	0.0	0.0	0.0	109.7	0.0	5.2	37.7	37.0
FLATHEAD SOLE	9.1	4.3	0.5	5.0	6.4	5.7	0.9	7.3	22.7	0.0	0.0
DOVER SOLE	44.5	2.7	1.5	6.4	16.8	40.8	2.3	8.6	37.6	12.7	15.4
REX SOLE	30.4	7.9	1.0	7.7	8.8	15.4	28.6	15.4	34.5	39.5	38.6
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.2	8.2	0.0	1.6	2.3	1.6
ROUGHEYE RKFH	15.0	7.9	0.7	5.0	24.0	1.8	0.0	0.0	2.0	0.0	0.0
THORNYHEADS	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	35.8	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	17.7	0.0	0.7	0.3	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.9	0.1	0.3
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	7.3	1.6	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	0.0
SKATES	4.1	5.0	0.0	8.6	10.4	11.3	10.4	0.0	0.0	0.1	0.0
SHARKS	0.0	23.6	15.4	8.2	1.6	7.7	0.0	5.4	4.5	16.8	19.5
TANNER CRAB	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	2.7	2.7	1.4	0.0	0.0	0.0	2.3	0.0	0.0	0.0
SIDE STRIPE SHRIMP	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	298	299	300	301	302	303	304	305	306	307	308
MONTH/DAY/YEAR	8/24/90	8/25/90	8/25/90	8/25/90	8/26/90	8/26/90	8/26/90	8/27/90	8/27/90	8/27/90	8/27/90
LATITUDE START	59 20.3	59 39.0	59 30.3	59 38.6	59 49.5	59 54.4	59 43.5	59 55.1	60 2.5	59 47.6	60 2.2
LONGITUDE START	149 29.0	149 52.2	149 41.2	149 31.3	149 16.1	149 0.7	148 30.3	147 18.1	146 50.8	146 35.4	146 21.1
LATITUDE END	59 21.2	59 37.3	59 28.9	59 39.4	59 48.2	59 53.2	59 42.4	59 54.5	60 3.3	59 47.6	60 2.3
LONGITUDE END	149 26.7	149 52.0	149 42.3	149 33.4	149 14.7	149 2.9	148 27.8	147 16.9	146 48.2	146 33.8	146 21.5
LORAN START	12805.30	12903.90	12857.50	12976.70	13142.50	13248.80	13259.60	13653.20	13829.00	13749.70	13940.40
LORAN END	31669.50	31816.00	31748.70	31790.90	31846.60	31863.20	31754.00	31745.70	31764.90	31625.30	31719.30
LORAN END	12823.00	12887.40	12838.70	12976.40	13134.50	13228.60	13259.20	13652.30	13846.80	13755.80	13940.00
LORAN END	31672.40	31805.10	31740.40	31798.30	31836.30	31857.40	31743.70	31739.70	31767.50	31623.00	31720.80
GEAR DEPTH	71	118	51	150	56	51	94	52	63	38	34
DURATION IN HOURS	0.50	0.44	0.50	0.22	0.48	0.47	0.52	0.23	0.47	0.24	0.06
DISTANCE FISHED	1.49	1.43	1.58	0.74	1.38	1.48	1.63	0.70	1.40	0.68	0.14
PERFORMANCE / GEAR	1 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	1 /172	0 /172	0 /172	5 /172
POLLOCK	1.1	171.0	0.5	48.1	14.8	3.4	4.1	22.7	9.1	0.5	0.0
PACIFIC COD	45.1	0.0	1.8	7.3	123.8	25.4	0.0	0.0	0.0	6.4	0.0
SABLEFISH	2.7	7.7	0.0	85.3	0.0	0.0	29.5	6.8	16.8	0.0	0.0
ARROWTOOTH FL.	477.9	84.6	11.8	16.6	251.7	161.9	361.5	46.7	103.4	1.4	0.0
HALIBUT	75.1	0.0	66.2	0.0	69.6	45.0	0.0	7.3	5.1	15.5	4.5
FLATHEAD SOLE	114.8	24.0	0.0	8.2	9.1	12.2	36.7	35.4	23.1	0.0	0.0
DOVER SOLE	9.8	0.5	0.0	1.8	0.9	9.1	68.0	29.9	12.2	0.0	0.0
REX SOLE	15.0	1.6	0.0	5.4	5.9	8.6	5.4	12.7	2.7	0.0	0.0
ROCK SOLE	0.0	0.0	66.2	0.0	2.3	1.4	0.0	0.0	0.0	15.9	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	48.5	0.0	0.0	0.0
PAC OC PERCH	10.0	0.0	0.9	0.0	1.4	0.4	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	34.5	0.0	1.1	0.0	0.7	29.0	0.0	4.5	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	7.7	0.0	0.2	0.0	23.6	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	5.0	0.0	35.7	10.4	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	6.4	0.0	0.9	0.3	0.2	0.0	0.0	0.0
SKATES	0.0	15.9	18.1	0.0	13.6	0.9	2.3	10.0	0.0	0.0	0.0
SHARKS	29.5	0.0	0.0	0.0	6.4	0.0	15.9	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.3	0.0	0.7	0.0	0.0	0.0	0.0	0.1	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	2.3	0.0	8.6	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	309	310	311	312	313	314	315	316	317	318	319
MONTH/DAY/YEAR	8/27/90	8/28/90	8/28/90	8/28/90	8/28/90	8/28/90	8/28/90	8/29/90	8/29/90	8/29/90	8/29/90
LATITUDE START	60 12.9	60 11.2	60 16.4	60 16.2	60 6.5	59 53.9	59 49.2	59 46.8	59 45.8	59 45.2	59 35.7
LONGITUDE START	146 51.7	145 57.8	145 53.4	145 41.5	145 6.6	145 2.1	144 53.4	145 59.5	145 44.1	145 34.3	145 15.7
LATITUDE END	60 13.1	60 10.1	60 15.4	60 15.6	60 6.0	59 52.4	59 47.9	59 46.4	59 0.0	59 45.3	59 34.4
LONGITUDE END	146 54.9	145 55.3	145 50.7	145 39.2	145 3.8	145 1.1	144 55.6	146 2.7	0 0.0	145 31.4	145 14.7
LORAN START	13924.90	14112.80	14177.60	14219.80	14255.60	14156.80	14145.70	13880.70	13930.20	13961.40	13945.70
LORAN START	31847.70	31757.30	31793.20	31773.20	31630.80	31513.40	31456.00	31560.00	31524.90	31502.00	31386.40
LORAN END	13914.20	14111.60	14178.70	14222.90	14261.10	14147.00	14126.50	13864.70	13935.20	13972.60	13938.60
LORAN END	31853.80	31744.50	31781.70	31765.10	31621.40	31498.90	31449.70	31562.30	31514.50	31496.80	31373.80
GEAR DEPTH	138	60	32	17	44	105	99	50	59	64	65
DURATION IN HOURS	0.42	0.47	0.53	0.47	0.52	0.44	0.43	0.49	0.44	0.47	0.47
DISTANCE FISHED	1.38	1.47	1.58	1.24	1.49	1.31	1.46	1.56	1.39	1.34	1.37
PERFORMANCE / GEAR	1 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	121.8	61.2	254.5	1.6	50.3	129.7	65.8	10.0	32.7	88.9	41.5
PACIFIC COD	6.8	14.1	20.9	0.0	0.9	21.8	2.5	0.3	3.2	11.3	34.9
SABLEFISH	94.3	24.9	0.0	0.0	2.3	62.1	36.3	2.7	10.4	17.2	4.3
ARROWTOOTH FL.	44.9	189.6	21.3	0.0	39.9	400.5	367.9	27.7	124.3	373.3	188.2
HALIBUT	4.0	31.6	115.7	1.6	33.2	2.3	85.9	0.0	3.3	14.6	16.3
FLATHEAD SOLE	14.3	65.8	54.0	0.2	12.0	8.6	10.0	2.3	22.7	153.3	73.7
DOVER SOLE	10.0	72.8	2.7	0.0	0.1	37.6	98.9	0.9	29.9	62.1	13.6
REX SOLE	21.5	36.1	14.1	0.0	2.0	119.3	155.6	0.8	3.6	8.6	9.5
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	140.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	27.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	19.5	7.3	5.7	7.3	0.0	1.6	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
ROUGHEYE RKFH	0.0	5.0	0.0	0.0	0.5	5.0	0.0	0.9	10.0	3.2	0.1
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	1.8	10.2	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.2
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
SKATES	0.0	1.6	18.1	127.0	0.2	17.3	4.1	0.0	17.7	15.9	17.2
SHARKS	0.0	0.0	0.0	6.1	1.8	1.8	5.9	0.0	2.3	84.8	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	5.9	0.2	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V PAT SAN MARIE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	320	321	322	323	324	325	326	327	328	329
MONTH/DAY/YEAR	8/29/90	8/29/90	8/30/90	8/30/90	8/30/90	8/30/90	8/30/90	8/31/90	8/31/90	8/31/90
LATITUDE START	59 26.9	59 27.4	59 40.2	59 38.5	59 29.9	59 30.3	59 29.9	59 36.6	59 42.2	59 52.8
LONGITUDE START	145 53.4	145 30.1	145 23.1	144 54.1	145 2.9	144 57.1	144 49.5	144 20.3	144 12.0	144 10.9
LATITUDE END	59 28.1	59 27.4	59 41.8	59 37.4	59 29.9	59 29.4	59 29.9	59 35.5	59 42.0	59 54.0
LONGITUDE END	145 52.0	145 30.1	145 22.7	144 56.5	145 2.5	144 59.5	144 52.1	144 22.4	144 9.0	144 8.8
LORAN START	13727.20		13958.40	14048.70	13942.60	13967.40	13991.40	14151.20	14228.50	14324.60
LORAN START	31388.60		31439.30	31365.80	31311.90	31303.00	31283.30	31275.20	31306.00	31397.60
LORAN END	13743.00		13973.90	14031.00	13943.50	13950.80	13980.00	14135.00	14236.80	14342.60
LORAN END	31395.50		31451.70	31361.80	31311.10	31300.60	31287.10	31271.40	31297.40	31403.90
GEAR DEPTH	215	250	59	87	124	151	181	170	69	29
DURATION IN HOURS	0.41	-0.16	0.47	0.43	0.01	0.35	0.31	0.50	0.50	0.52
DISTANCE FISHED	1.03	0.00	1.45	1.38	0.02	1.03	0.97	1.50	1.52	1.64
PERFORMANCE / GEAR	0 /172	5 /172	0 /172	0 /172	6 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	28.1	24.5	0.0	165.6	104.8	29.3	0.1	19.3
PACIFIC COD	0.0	0.0	23.6	4.8	0.0	0.0	0.0	0.0	11.3	5.9
SABLEFISH	22.7	0.0	17.2	11.8	0.0	26.8	30.4	99.8	0.0	2.3
ARROWTOOTH FL.	10.4	0.0	147.9	57.6	0.0	27.2	34.0	306.4	182.3	23.6
HALIBUT	0.0	0.0	10.4	25.3	0.0	0.0	0.0	42.7	69.4	11.3
FLATHEAD SOLE	0.0	0.0	22.7	12.7	0.0	0.0	0.0	0.0	11.8	0.1
DOVER SOLE	5.4	0.0	39.0	4.1	0.0	7.7	17.7	25.4	0.0	0.0
REX SOLE	0.0	0.0	2.9	5.9	0.0	0.1	0.0	6.6	0.5	7.7
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.6
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.1
PAC OC PERCH	0.5	0.0	0.0	0.1	0.0	7.3	0.6	1.8	0.0	0.0
ROUGHEYE RKFH	39.0	0.0	2.5	2.7	0.0	14.5	140.2	163.3	0.4	0.0
THORNYHEADS	23.1	0.0	0.0	11.8	0.0	11.3	5.4	62.1	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	283.5	0.0	0.0	0.0	0.0	0.0	52.6	113.2	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0	2.9	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.9	0.3	0.5	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.0	1.8	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	0.0	0.2	3.4	0.0	0.0
SKATES	14.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	4.5	5.0	0.0	0.0	0.0	0.0	0.0	3.2
TANNER CRAB	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.4	0.0	2.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

SECTION 2 (continued)

Fishing log for the Pat San Marie

Summary listings of catch rates in descending order of magnitude for selected species of commercial interest

■ Catch rates (kg/nm) are standardized to a 15 m trawl width.

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
214	3320.1	0.7	64
172	3093.1	0.8	47
75	2266.7	0.9	79
194	2189.6	1.0	85
167	2082.9	0.6	42
166	1906.8	1.3	73
169	1895.2	1.8	88
123	1620.2	0.6	63
262	1449.9	0.8	61
143	1286.6	2.3	82
261	1152.2	1.2	74
119	1052.6	0.7	73
36	949.0	0.8	81
265	923.4	1.2	84
122	918.7	0.9	71
203	911.4	1.0	85
108	910.5	0.5	75
275	902.9	1.2	111
257	862.3	0.6	43
74	845.3	0.5	61
159	834.9	0.9	75
141	785.2	1.1	96
211	775.6	0.7	79
104	737.7	0.8	84
192	692.8	1.5	85
222	668.4	0.7	59
101	657.9	0.6	58
256	635.0	0.9	73
223	629.1	0.9	106
87	570.9	0.4	74
134	564.9	0.7	65
118	530.8	0.5	60
66	519.2	0.6	61
21	517.5	1.1	56
264	496.4	1.1	80
230	482.3	1.2	72
170	469.0	1.3	98
266	469.0	0.7	88
120	460.7	0.6	71
202	436.6	1.0	43
111	435.8	0.5	74
158	423.6	0.7	67
107	413.8	0.5	70
297	409.9	0.9	0
125	403.5	0.6	68
64	384.0	0.8	64
175	383.2	0.6	60
251	360.3	1.1	117

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
295	359.9	0.7	91
190	354.5	0.5	86
171	349.0	1.4	128
150	345.8	0.8	83
226	344.1	1.1	89
97	339.0	1.1	98
259	335.3	0.6	68
98	332.5	0.4	70
246	324.3	0.7	65
298	320.7	0.5	71
3	319.5	0.5	73
67	310.6	0.4	40
314	305.7	2.0	105
254	302.2	1.1	97
65	297.4	0.8	77
135	292.4	0.5	72
189	288.3	1.6	86
103	283.3	0.6	87
290	280.2	0.7	64
248	279.5	0.9	108
318	278.6	0.8	64
280	274.9	0.7	94
99	271.3	0.7	70
94	270.9	0.4	65
84	270.5	0.8	108
92	260.4	0.5	93
100	260.1	0.5	57
204	256.3	0.7	60
242	255.6	1.2	97
315	252.0	1.6	99
271	249.5	0.7	73
277	249.1	1.1	86
195	244.3	1.2	69
139	243.4	0.4	65
127	237.0	0.7	87
293	234.7	0.5	65
173	233.3	1.4	77
121	231.4	0.5	66
213	229.4	0.9	125
184	228.6	1.5	116
304	221.8	0.7	94
95	221.4	0.4	82
187	220.2	1.2	72
155	216.4	1.6	116
69	213.0	0.4	66
90	212.7	0.7	108
142	209.8	0.8	135
20	206.0	0.7	65

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
105	204.7	0.5	71
327	204.3	1.6	170
216	202.0	0.7	89
109	198.3	0.5	68
91	195.1	0.7	111
237	194.2	1.1	92
181	187.2	0.9	62
168	187.2	1.1	130
174	185.1	0.6	55
148	183.3	1.3	112
302	182.4	0.5	56
241	180.5	1.3	104
96	180.0	1.1	86
52	176.5	0.5	43
224	175.8	0.9	108
56	175.0	0.5	80
83	172.8	1.3	105
93	170.8	0.3	59
130	166.6	0.3	61
273	162.2	1.1	101
86	161.1	0.7	107
288	159.6	0.9	66
255	156.0	1.2	96
238	146.8	0.7	89
245	146.6	1.3	159
267	146.3	0.8	85
244	139.3	0.9	83
253	138.7	1.4	88
319	137.4	0.4	65
260	135.0	1.2	84
296	134.3	1.0	84
310	129.0	0.7	60
196	127.9	0.6	55
276	127.3	0.6	108
243	126.3	0.9	116
1	125.6	0.6	82
212	124.6	0.9	107
153	123.9	1.1	105
236	122.7	1.2	80
328	120.0	0.4	69
25	118.8	1.1	76
131	117.8	0.6	103
146	113.9	2.9	122
117	110.5	0.5	54
303	109.4	0.3	51
61	109.0	0.8	82
269	108.2	0.4	72
89	107.3	0.8	111

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
286	106.7	1.0	71
239	105.9	1.1	108
63	104.2	0.7	77
322	102.0	0.9	59
137	100.7	1.1	89
136	95.6	0.6	82
42	95.3	0.6	57
50	91.3	0.6	59
317	89.4	0.7	59
176	89.1	1.0	76
294	87.8	0.6	82
292	86.6	0.5	78
106	85.4	0.8	79
274	79.1	1.1	132
57	77.3	0.3	45
41	75.4	0.3	61
221	75.0	0.3	67
306	73.9	0.7	63
281	72.7	1.6	107
284	72.0	1.1	106
62	71.6	1.0	61
287	70.3	1.7	114
53	69.3	0.3	60
197	68.9	0.4	35
291	68.6	1.0	115
47	68.3	0.4	60
305	66.7	0.6	52
185	65.5	1.8	189
161	62.4	0.1	76
51	61.9	0.3	46
85	59.8	0.6	94
299	59.2	1.2	118
82	58.9	0.6	103
129	57.2	0.4	69
227	51.1	0.8	77
252	48.1	1.1	111
8	47.0	0.2	55
81	44.5	0.9	119
278	42.8	1.8	150
323	41.7	0.3	87
272	38.6	0.9	107
58	37.1	0.6	68
154	36.6	0.3	79
45	36.2	0.3	54
270	35.7	0.6	98
326	35.1	2.6	181
309	32.5	2.8	138
179	31.9	0.6	33

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
199	31.8	0.5	40
46	30.0	0.2	53
178	29.9	0.2	40
49	27.8	0.5	55
313	26.8	0.4	44
325	26.4	2.3	151
31	25.9	0.9	46
289	25.8	0.4	64
40	25.1	0.3	50
39	24.2	0.2	50
80	22.8	1.0	106
180	22.6	0.2	28
301	22.4	1.4	150
68	21.9	0.5	56
13	18.6	0.2	51
44	18.4	1.1	115
316	17.7	0.5	50
217	17.5	0.2	69
77	17.5	0.4	68
279	16.3	1.0	126
156	15.5	1.0	110
329	14.4	0.2	29
311	13.5	1.0	32
18	12.7	0.6	59
198	11.1	0.2	37
263	10.5	0.1	42
240	10.4	0.2	19
160	10.3	2.6	186
320	10.1	1.7	215
300	7.5	0.4	51
43	7.0	1.4	116
28	6.8	2.2	105
29	6.7	0.7	50
206	6.0	2.9	196
79	5.7	1.4	97
209	5.2	1.5	153
15	5.0	0.7	45
16	4.9	0.2	57
193	4.6	0.3	42
11	3.7	0.3	76
205	3.1	2.3	161
183	3.1	0.1	59
24	3.0	0.7	43
4	3.0	0.3	56
48	2.9	1.5	44
200	2.9	2.0	28
157	2.6	0.8	112
218	2.6	1.4	177

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
258	2.5	0.2	30
23	2.2	1.6	42
249	2.1	1.6	159
210	2.0	0.5	100
307	2.0	0.2	38
78	1.9	0.2	51
12	1.8	0.3	81
235	1.7	0.1	25
207	1.4	0.1	53
6	1.2	0.2	54
201	1.2	2.3	34
112	1.2	0.1	59
26	1.2	1.0	233
17	1.1	0.3	105
19	1.0	0.2	50
220	1.0	0.0	64
7	0.9	0.0	46
22	0.9	1.4	43
140	0.8	0.1	51
115	0.8	0.1	52
116	0.7	0.1	50
72	0.7	0.1	41
234	0.6	0.3	29
30	0.5	0.7	45
73	0.4	0.1	43
233	0.3	0.5	23
70	0.3	0.1	36
124	0.2	0.0	45
71	0.1	0.1	27
88	0.1	0.0	44
110	0.1	0.0	50
126	0.0	0.0	90

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
201	455.1	3.4	34
213	395.9	14.7	125
114	342.4	4.8	44
69	280.3	7.0	66
200	237.5	2.3	28
113	229.7	4.2	45
202	199.2	4.7	43
115	190.3	3.5	52
217	189.9	24.5	69
147	183.7	16.5	141
204	172.2	6.3	60
265	165.3	17.5	84
269	155.8	4.5	72
98	152.6	12.4	70
141	152.1	8.7	96
220	142.5	22.2	64
165	141.3	2.5	36
134	128.4	6.9	65
262	125.8	4.9	61
132	119.0	2.3	19
94	118.0	10.8	65
261	117.5	9.3	74
159	116.9	6.3	75
214	111.7	3.9	64
35	111.1	33.3	54
125	105.8	8.2	68
271	102.9	25.0	73
172	97.5	9.7	47
140	94.6	3.3	51
72	94.0	4.4	41
293	91.4	13.7	65
177	85.9	1.7	32
127	85.7	13.0	87
161	85.1	6.1	76
224	84.2	104.4	108
263	83.1	2.6	42
182	82.8	8.9	39
246	82.6	7.8	65
192	81.9	11.0	85
16	80.7	17.3	57
180	79.6	27.9	28
144	79.4	24.1	42
10	78.8	8.2	45
190	76.9	27.9	86
169	75.9	9.6	88
219	75.5	17.4	71
111	74.1	6.7	74
311	73.2	9.6	32

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
67	73.0	2.1	40
186	71.3	6.2	60
101	70.6	8.6	58
85	66.3	10.1	94
37	65.3	5.0	35
284	65.3	38.8	106
275	64.7	15.4	111
45	63.3	5.6	54
102	62.7	4.2	40
273	62.4	24.3	101
258	62.3	7.8	30
248	61.7	10.4	108
199	61.5	3.1	40
157	61.5	18.4	112
31	59.4	2.4	46
315	58.8	4.3	99
15	58.2	2.2	45
154	57.5	7.5	79
100	57.2	6.0	57
50	56.6	5.4	59
64	56.6	8.2	64
216	56.5	18.1	89
253	56.2	13.7	88
73	55.7	7.9	43
198	54.2	1.3	37
230	53.8	21.7	72
52	53.6	4.0	43
12	53.4	22.4	81
122	51.7	9.9	71
264	51.5	7.0	80
57	50.6	3.6	45
302	50.4	13.9	56
298	50.4	18.8	71
109	49.2	12.1	68
118	48.9	6.1	60
240	48.7	1.0	19
87	48.7	7.4	74
93	48.6	9.6	59
211	48.1	10.3	79
99	47.7	9.7	70
53	47.5	3.2	60
11	46.0	4.0	76
328	45.7	17.3	69
203	44.5	6.6	85
104	44.2	12.6	84
128	43.6	10.8	41
103	43.4	16.7	87
207	42.6	13.6	53

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
96	42.2	8.2	86
300	41.9	2.5	51
78	41.2	10.0	51
277	40.5	16.7	86
24	39.9	9.4	43
68	39.7	4.0	56
40	38.7	5.0	50
221	38.7	4.1	67
143	37.5	9.1	82
110	37.5	3.1	50
51	36.6	1.9	46
41	36.3	4.7	61
88	35.5	2.2	44
60	34.6	1.4	46
181	34.5	6.8	62
20	34.4	2.6	65
193	34.2	2.5	42
75	34.2	11.3	79
162	34.1	1.5	22
166	32.8	7.2	73
80	32.5	8.0	106
308	32.4	4.5	34
7	31.8	2.5	46
179	31.1	4.1	33
116	30.5	3.3	50
303	30.4	9.0	51
36	30.4	6.4	81
83	30.0	6.9	105
188	29.9	9.6	39
21	29.4	3.2	56
32	29.4	1.4	36
97	29.3	8.7	98
138	29.1	5.2	65
212	28.9	12.9	107
327	28.5	6.1	170
117	28.1	5.4	54
6	27.6	1.8	54
297	27.4	12.3	0
123	27.1	10.5	63
187	27.0	11.4	72
66	25.7	4.1	61
124	25.7	1.8	45
257	24.7	3.8	43
136	24.6	5.8	82
112	24.5	3.6	59
296	24.5	18.8	84
174	24.4	9.8	55
22	24.3	0.7	43

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
148	23.0	10.6	112
259	22.8	6.7	68
307	22.7	1.4	38
29	22.7	1.4	50
197	22.6	5.1	35
121	22.6	5.0	66
135	22.6	10.6	72
313	22.3	4.7	44
13	22.0	1.5	51
18	21.9	8.4	59
130	21.7	3.5	61
310	21.5	7.9	60
62	21.5	10.0	61
4	21.2	1.3	56
65	20.9	5.5	77
178	20.2	3.3	40
63	20.2	10.0	77
106	20.0	7.3	79
142	20.0	28.8	135
1	19.8	2.3	82
158	19.0	3.9	67
30	18.9	0.8	45
139	18.5	4.1	65
170	18.5	12.0	98
323	18.3	25.3	87
255	18.3	12.1	96
194	18.2	12.7	85
137	17.8	26.7	89
256	17.0	4.5	73
191	16.6	1.7	39
222	15.7	8.9	59
54	15.6	3.4	42
241	15.4	17.7	104
77	15.4	7.8	68
70	15.3	1.5	36
196	15.2	7.6	55
171	15.2	7.4	128
167	15.0	5.0	42
235	14.6	1.2	25
9	14.4	4.7	47
237	14.2	4.6	92
266	14.1	4.0	88
234	14.0	10.2	29
49	13.7	0.8	55
288	13.4	7.2	66
8	13.4	2.8	55
82	13.3	8.1	103
281	13.3	9.0	107

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
46	13.1	5.0	53
108	13.1	6.5	75
272	12.9	21.0	107
223	12.9	15.2	106
86	12.9	9.3	107
34	12.8	15.7	41
48	12.6	0.8	44
95	12.5	4.7	82
251	12.4	19.8	117
89	12.3	9.7	111
319	11.9	4.1	65
47	11.7	3.0	60
215	11.2	8.2	63
61	11.2	8.1	82
254	11.0	18.2	97
318	10.9	3.7	64
105	10.6	8.0	71
305	10.4	2.4	52
42	10.0	3.3	57
90	9.9	7.3	108
183	9.9	6.3	59
81	9.9	7.5	119
252	9.5	9.6	111
3	9.2	1.8	73
175	9.1	2.9	60
39	8.8	2.9	50
150	8.7	3.5	83
189	8.6	12.6	86
43	8.0	9.3	116
129	8.0	6.1	69
227	7.9	10.3	77
184	7.4	11.1	116
119	7.2	11.8	73
322	7.2	5.2	59
329	6.9	2.8	29
133	6.8	1.7	32
107	6.3	9.3	70
71	6.1	1.9	27
120	6.0	9.0	71
74	5.6	1.8	61
164	5.5	1.4	16
84	5.5	3.1	108
91	5.3	3.7	111
23	5.3	0.9	42
247	5.0	0.9	17
245	4.0	4.0	159
260	3.9	3.2	84
280	3.8	5.6	94

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
295	3.8	5.2	91
306	3.7	2.6	63
25	3.4	4.8	76
309	2.9	4.0	138
317	2.3	3.3	59
244	1.9	0.8	83
314	1.7	2.3	105
276	1.6	2.2	108
243	1.6	1.9	116
312	1.3	1.6	17
238	0.9	1.3	89
33	0.9	0.4	51
231	0.5	0.1	11
126	0.0	22.1	90

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES FLATHEAD SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
195	1522.2	0.5	69
174	438.0	0.4	55
130	239.2	0.3	61
58	197.7	0.4	68
97	181.7	0.4	98
56	179.8	0.2	80
57	172.4	0.2	45
179	163.9	0.5	33
196	140.6	0.4	55
68	137.1	0.4	56
91	135.9	0.3	111
52	134.9	0.6	43
253	121.9	0.3	88
256	119.4	0.4	73
194	114.6	0.3	85
318	114.4	0.4	64
223	112.4	0.3	106
254	106.6	0.4	97
69	103.7	0.3	66
244	100.4	0.3	83
98	95.8	0.3	70
66	90.1	0.3	61
170	89.3	0.3	98
65	87.9	0.2	77
167	87.2	0.4	42
99	85.0	0.3	70
298	77.0	0.4	71
181	73.9	0.5	62
101	73.1	0.3	58
92	69.2	0.2	93
275	67.5	0.2	111
131	67.0	0.4	103
96	65.4	0.3	86
216	64.1	0.3	89
50	61.7	0.3	59
242	60.1	0.3	97
90	58.4	0.2	108
89	58.4	0.4	111
180	58.2	0.2	28
169	57.7	0.3	88
86	54.8	0.3	107
319	53.8	0.3	65
305	50.5	0.3	52
118	48.1	0.5	60
134	47.9	0.3	65
173	47.7	0.3	77
106	47.7	0.2	79
310	44.7	0.2	60

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES FLATHEAD SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
46	44.5	0.6	53
276	44.3	0.2	108
137	44.3	0.2	89
243	42.4	0.4	116
175	41.4	0.3	60
51	40.6	0.5	46
135	40.4	0.3	72
136	40.2	0.3	82
189	38.1	0.3	86
211	38.1	0.6	79
100	36.0	0.2	57
251	35.2	0.3	117
311	34.2	0.3	32
103	31.8	0.2	87
119	31.7	0.2	73
190	31.3	0.4	86
171	29.5	0.3	128
117	29.2	0.6	54
213	26.3	0.3	125
192	26.0	0.7	85
261	25.6	0.4	74
255	24.7	0.2	96
172	23.7	0.3	47
166	23.5	0.5	73
197	22.8	0.5	35
304	22.5	0.2	94
252	22.5	0.4	111
176	22.0	0.3	76
104	21.5	0.3	84
122	21.3	0.3	71
127	20.9	0.3	87
47	20.6	0.3	60
141	20.5	0.3	96
120	20.1	0.2	71
107	20.1	0.2	70
143	19.8	0.6	82
241	19.3	0.3	104
108	18.7	0.2	75
277	17.6	0.3	86
95	17.4	0.3	82
125	17.1	0.3	68
109	17.1	0.2	68
64	17.0	0.3	64
299	16.8	0.3	118
295	16.6	0.2	91
306	16.5	0.3	63
317	16.3	0.2	59
142	15.9	0.4	135

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES FLATHEAD SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
41	15.6	0.4	61
322	15.6	0.3	59
237	15.6	0.4	92
1	15.5	0.5	82
212	15.4	0.4	107
42	15.4	0.7	57
168	15.3	0.4	130
155	14.6	0.4	116
39	13.5	0.6	50
248	13.5	0.3	108
203	13.0	0.5	85
105	12.9	0.2	71
84	12.8	0.4	108
121	12.4	0.3	66
36	12.1	0.9	81
236	12.1	0.4	80
111	11.9	0.7	74
301	11.0	0.4	150
87	10.7	0.6	74
309	10.4	0.9	138
63	10.3	0.2	77
178	10.2	0.2	40
184	10.0	0.1	116
239	9.7	0.4	108
267	9.4	0.8	85
323	9.2	0.2	87
284	9.0	0.1	106
238	8.7	0.3	89
303	8.3	0.3	51
67	8.2	0.4	40
313	8.1	0.1	44
187	7.9	0.3	72
328	7.8	0.7	69
287	6.9	0.2	114
315	6.8	0.5	99
139	6.8	0.3	65
3	6.7	0.8	73
314	6.6	0.4	105
302	6.6	0.5	56
94	6.2	0.3	65
146	5.8	0.2	122
235	5.7	0.1	25
123	5.0	0.3	63
240	4.8	0.1	19
53	4.7	0.2	60
294	4.7	0.3	82
45	4.6	0.5	54
49	4.5	0.4	55

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ENGLISH SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
305	69.3	0.8	52
67	21.0	0.6	40
310	13.3	0.8	60
329	8.6	0.3	29
167	5.6	0.9	42
190	5.2	1.1	86
313	4.9	0.5	44
311	4.6	0.6	32
312	4.6	0.3	17
122	2.6	1.3	71
211	2.1	1.6	79
231	1.7	0.7	11
290	1.3	0.7	64
3	1.2	1.4	73
315	1.1	0.8	99
256	0.9	0.7	73
64	0.8	1.1	64
197	0.8	0.3	35
57	0.3	0.4	45

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES DOVER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
216	219.4	0.9	89
223	132.8	1.3	106
281	96.4	0.7	107
280	79.2	0.5	94
192	76.7	1.2	85
277	68.4	0.8	86
315	67.7	0.7	99
284	57.6	0.6	106
261	56.9	1.1	74
310	49.5	0.7	60
173	46.5	1.1	77
318	46.4	0.7	64
194	43.0	2.2	85
305	42.8	0.6	52
304	41.7	0.7	94
237	36.9	1.0	92
141	36.7	1.2	96
175	33.9	1.5	60
287	33.9	0.6	114
203	33.9	0.8	85
169	33.8	1.4	88
212	33.2	0.7	107
181	32.0	0.8	62
172	31.7	0.8	47
275	30.1	1.2	111
278	29.8	0.7	150
314	28.7	0.7	105
276	28.1	1.1	108
295	27.5	0.9	91
322	26.9	0.5	59
222	23.7	0.7	59
292	21.6	0.7	78
224	21.6	1.2	108
317	21.5	0.7	59
139	21.2	0.8	65
75	20.8	1.2	79
264	20.4	0.9	80
184	20.3	1.0	116
142	19.8	1.2	135
155	18.3	0.6	116
326	18.2	0.6	181
327	16.9	0.7	170
160	16.8	1.0	186
185	15.7	0.9	189
153	15.7	0.7	105
85	15.2	0.8	94
148	13.7	1.1	112
86	13.5	1.3	107

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES DOVER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
206	13.5	0.7	196
83	13.4	0.9	105
176	12.5	1.2	76
297	11.4	0.8	0
170	11.0	2.4	98
187	11.0	1.2	72
291	11.0	0.7	115
279	10.9	0.7	126
273	10.5	1.3	101
74	10.2	0.9	61
319	9.9	0.8	65
143	9.9	1.0	82
213	9.4	0.7	125
270	9.3	1.1	98
286	9.2	0.7	71
306	8.7	0.6	63
296	8.2	0.8	84
80	8.2	0.9	106
226	8.0	0.7	89
246	7.9	0.8	65
325	7.5	0.8	151
82	7.3	0.7	103
248	7.3	0.9	108
309	7.2	1.2	138
166	7.2	1.2	73
272	7.0	0.9	107
171	6.8	1.7	128
218	6.7	0.5	177
298	6.5	0.8	71
84	6.5	0.7	108
87	6.5	0.7	74
303	6.1	0.6	51
236	5.9	0.8	80
238	5.8	1.0	89
167	5.6	0.7	42
294	5.6	0.9	82
189	5.4	0.8	86
111	5.3	0.6	74
320	5.3	0.8	215
91	4.8	1.4	111
265	4.6	0.8	84
209	4.6	0.6	153
118	4.5	0.6	60
79	4.4	1.6	97
262	4.3	0.9	61
123	4.2	0.7	63
81	4.2	0.9	119
290	4.0	0.7	64

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES DOVER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
109	4.0	0.5	68
168	4.0	1.6	130
61	3.8	0.7	82
146	3.8	0.7	122
227	3.5	1.1	77
121	3.4	0.6	66
134	3.3	0.6	65
271	3.1	0.6	73
266	3.0	0.9	88
323	3.0	0.6	87
108	2.9	0.6	75
230	2.8	0.9	72
107	2.8	0.6	70
255	2.7	1.2	96
254	2.7	1.1	97
269	2.7	0.9	72
150	2.6	1.1	83
89	2.6	1.0	111
76	2.6	0.6	240
301	2.5	0.6	150
211	2.4	0.5	79
127	2.2	0.7	87
253	2.2	1.4	88
90	2.2	0.8	108
190	2.1	0.4	86
267	2.0	2.3	85
293	1.9	0.4	65
205	1.9	0.5	161
158	1.9	1.4	67
149	1.9	0.9	277
156	1.8	0.9	110
311	1.7	0.7	32
288	1.7	0.5	66
147	1.4	0.9	141
260	1.4	0.6	84
289	1.4	0.7	64
63	1.1	0.8	77
244	1.1	0.7	83
104	1.0	0.9	84
274	1.0	0.2	132
135	1.0	0.5	72
97	0.9	0.7	98
242	0.7	0.9	97
302	0.7	0.5	56
68	0.6	0.6	56
178	0.6	0.1	40
137	0.6	0.5	89
249	0.6	0.9	159

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES REX SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
184	142.4	0.4	116
192	135.4	0.5	85
216	128.3	0.5	89
173	124.9	0.5	77
143	119.8	0.5	82
315	106.6	0.2	99
139	103.8	0.4	65
187	102.3	0.4	72
155	98.1	0.4	116
314	91.1	0.2	105
213	90.1	0.3	125
261	88.2	0.6	74
175	77.3	0.6	60
122	76.1	0.7	71
153	71.5	0.4	105
203	68.6	0.3	85
176	62.8	0.5	76
111	62.6	0.5	74
81	60.4	0.4	119
109	58.9	0.5	68
280	57.8	0.3	94
212	57.5	0.4	107
108	57.4	0.6	75
277	52.1	0.4	86
87	46.0	0.5	74
118	44.8	0.5	60
211	44.5	0.5	79
75	37.9	0.8	79
167	37.8	0.5	42
83	35.6	0.6	105
142	33.1	0.7	135
85	28.9	0.6	94
297	28.6	0.3	0
278	28.1	0.3	150
181	28.1	0.6	62
150	27.4	0.5	83
74	27.2	0.3	61
223	26.3	0.6	106
146	26.1	0.4	122
296	25.6	0.3	84
295	25.2	0.3	91
82	24.6	0.5	103
310	24.5	0.2	60
28	24.1	0.5	105
293	23.8	0.4	65
148	23.5	0.5	112
287	23.2	0.2	114
1	20.9	0.5	82

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES REX SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
190	20.9	0.6	86
275	19.3	0.3	111
141	18.6	0.7	96
104	18.4	0.5	84
305	18.1	0.3	52
222	17.9	0.4	59
281	17.7	0.2	107
169	16.9	1.0	88
309	15.6	0.7	138
41	14.8	0.3	61
264	14.6	0.5	80
80	14.5	0.4	106
44	14.4	0.4	115
123	14.1	0.4	63
166	13.7	0.4	73
226	12.0	0.4	89
3	11.8	0.6	73
194	11.5	0.4	85
284	11.4	0.2	106
276	11.2	0.3	108
159	11.0	0.6	75
84	10.9	0.6	108
273	10.2	0.4	101
298	10.0	0.3	71
294	10.0	0.2	82
265	9.3	0.6	84
121	9.1	0.3	66
311	8.9	0.2	32
274	8.4	0.4	132
125	8.4	0.3	68
292	8.2	0.3	78
221	8.0	0.4	67
266	7.8	0.6	88
301	7.4	0.2	150
56	7.3	0.1	80
206	7.2	0.4	196
25	7.0	0.8	76
319	7.0	0.2	65
158	6.9	0.7	67
270	6.5	0.4	98
318	6.4	0.2	64
156	6.0	0.4	110
303	5.8	0.3	51
291	5.8	0.2	115
172	5.8	0.4	47
224	5.7	0.6	108
47	5.4	0.6	60
279	5.4	0.3	126

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES REX SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
267	5.3	0.5	85
209	5.2	0.3	153
94	4.9	0.2	65
288	4.9	0.2	66
290	4.9	0.3	64
246	4.8	0.4	65
260	4.7	0.6	84
329	4.7	0.2	29
43	4.7	0.4	116
185	4.4	0.3	189
327	4.4	0.3	170
302	4.3	0.2	56
323	4.3	0.2	87
271	4.0	0.3	73
63	4.0	0.5	77
86	3.8	0.7	107
238	3.7	0.2	89
61	3.4	0.5	82
304	3.3	0.1	94
49	3.2	0.3	55
69	3.0	0.2	66
91	2.9	0.2	111
107	2.8	0.4	70
189	2.7	0.4	86
197	2.7	0.2	35
317	2.6	0.2	59
286	2.5	0.2	71
237	2.5	0.6	92
96	2.3	0.3	86
105	2.3	0.3	71
322	2.0	0.2	59
90	2.0	0.1	108
130	2.0	0.1	61
262	2.0	0.4	61
236	2.0	0.4	80
95	2.0	0.2	82
306	1.9	0.2	63
205	1.9	0.5	161
120	1.8	0.5	71
99	1.8	0.1	70
227	1.7	0.8	77
251	1.7	0.2	117
134	1.6	1.6	65
21	1.5	0.2	56
253	1.5	0.4	88
218	1.5	0.3	177
161	1.4	0.6	76
57	1.4	0.3	45

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES YELLOWFIN SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
52	149.6	0.4	43
68	95.2	0.4	56
58	94.4	0.6	68
69	81.4	0.4	66
240	53.3	0.2	19
197	40.5	0.6	35
98	37.3	0.7	70
178	29.3	0.5	40
99	27.4	0.7	70
235	27.2	0.2	25
180	23.3	0.3	28
179	21.8	0.3	33
101	14.5	0.7	58
130	7.2	0.6	61
196	2.4	0.7	55
174	2.0	0.8	55
53	0.7	0.3	60
131	0.6	0.5	103
67	0.3	0.5	40

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES STARRY FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
312	113.2	1.1	17
200	55.3	2.8	28
197	11.4	2.6	35
231	9.0	1.5	11
60	4.7	0.9	46
196	3.3	2.5	55
234	3.1	4.5	29
201	2.5	2.3	34
178	1.9	2.7	40
232	1.1	1.8	39
329	0.7	1.1	29
240	0.5	0.7	19

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
165	375.5	0.7	36
52	302.8	0.2	43
67	254.6	0.5	40
198	213.0	0.3	37
258	192.3	0.5	30
51	148.7	0.3	46
257	146.4	0.4	43
31	145.4	0.6	46
178	132.5	0.5	40
197	127.7	0.5	35
7	114.8	0.4	46
38	113.4	0.4	36
40	98.6	0.8	50
214	96.1	0.6	64
15	90.7	0.3	45
46	89.5	0.6	53
23	89.2	0.6	42
4	85.7	0.4	56
13	84.2	0.5	51
49	83.2	0.4	55
22	81.1	0.4	43
24	79.4	0.7	43
57	79.4	0.4	45
39	70.3	0.6	50
45	64.8	0.5	54
196	63.5	0.7	55
262	63.1	0.4	61
16	62.6	0.4	57
6	57.2	0.6	54
1	55.8	0.9	82
140	54.7	0.4	51
204	54.0	0.4	60
202	52.4	0.5	43
20	51.7	0.6	65
207	50.8	0.4	53
42	46.4	0.7	57
29	45.6	0.5	50
199	45.4	0.6	40
3	43.4	0.9	73
300	41.9	0.5	51
48	40.8	0.4	44
124	40.4	0.4	45
222	39.6	0.4	59
30	39.1	0.5	45
132	33.6	0.5	19
117	32.0	0.5	54
181	32.0	0.8	62
118	29.8	0.5	60

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
123	29.8	0.6	63
215	28.3	0.5	63
263	27.4	0.2	42
21	23.9	0.6	56
307	23.3	0.5	38
193	22.5	0.4	42
62	21.5	0.6	61
102	20.7	0.7	40
41	20.4	0.5	61
134	20.1	0.5	65
9	19.2	0.4	47
69	18.7	0.4	66
128	17.0	0.3	41
18	15.3	0.9	59
71	14.9	0.4	27
190	14.7	0.8	86
53	14.4	0.5	60
32	14.3	0.6	36
19	13.8	0.4	50
112	13.7	0.6	59
177	13.2	0.6	32
259	13.2	0.5	68
101	12.9	0.7	58
8	11.1	0.6	55
235	10.8	0.2	25
93	10.5	0.8	59
220	9.7	0.5	64
246	9.6	0.7	65
161	9.5	0.9	76
211	9.4	0.5	79
70	9.1	0.5	36
217	8.9	0.7	69
88	8.6	0.4	44
60	8.6	0.3	46
125	8.5	0.6	68
72	8.1	0.3	41
201	7.9	0.6	34
110	7.5	0.7	50
167	6.5	0.8	42
115	6.5	0.5	52
200	6.4	0.9	28
58	6.3	0.6	68
114	6.1	0.3	44
175	5.7	0.7	60
159	5.7	0.9	75
73	5.7	0.3	43
98	5.4	0.8	70
50	5.4	0.5	59

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
186	5.3	0.5	60
135	5.1	0.7	72
188	5.1	0.3	39
36	4.6	0.3	81
68	4.3	0.4	56
248	4.2	0.3	108
183	4.2	0.4	59
116	3.9	0.3	50
191	3.3	0.3	39
100	3.3	0.7	57
66	3.0	0.8	61
144	2.7	0.3	42
176	2.6	0.5	76
221	2.5	0.5	67
99	2.4	0.8	70
54	2.3	0.1	42
25	1.9	0.5	76
240	1.9	0.4	19
264	1.9	0.6	80
231	1.7	0.2	11
302	1.6	0.6	56
17	1.6	0.6	105
56	1.6	0.2	80
12	1.4	0.9	81
78	1.4	0.6	51
139	1.3	0.7	65
234	1.2	0.9	29
97	1.2	0.6	98
87	1.2	0.5	74
232	1.1	0.2	39
136	1.0	0.9	82
130	1.0	0.6	61
182	1.0	0.2	39
195	0.9	0.4	69
303	0.9	0.7	51
133	0.9	0.3	32
47	0.9	0.7	60
244	0.7	0.9	83
94	0.7	1.0	65
269	0.7	1.1	72
74	0.7	0.6	61
317	0.7	0.9	59
64	0.6	0.9	64
162	0.6	0.7	22
65	0.5	0.3	77
286	0.5	0.8	71
265	0.4	0.2	84
260	0.3	0.5	84

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
174	0.3	0.5	55
113	0.3	0.1	45
233	0.3	0.4	23
33	0.2	0.4	51
187	0.2	0.5	72
236	0.2	0.2	80
129	0.0	0.0	69

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES BUTTER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
197	230.8	0.3	35
178	63.3	0.4	40
165	28.2	0.5	36
174	26.6	0.4	55
312	22.1	0.3	17
52	14.7	0.4	43
181	12.6	0.5	62
329	7.1	0.2	29
231	6.7	0.3	11
67	5.2	0.3	40
196	3.9	0.3	55
190	3.8	0.8	86
162	2.2	0.2	22
234	2.2	0.8	29
257	1.0	0.3	43
68	0.8	0.3	56
39	0.7	0.3	50
167	0.6	0.2	42
175	0.4	0.6	60
240	0.3	0.2	19
235	0.3	0.2	25
179	0.3	0.5	33
71	0.1	0.2	27
72	0.0	0.0	41

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ALASKA PLAICE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
240	24.2	1.0	19
98	10.8	2.0	70
181	9.7	3.0	62
235	9.1	1.0	25
180	7.7	1.1	28
58	4.8	2.9	68
69	4.5	0.8	66
130	3.2	1.8	61
179	3.2	2.5	33
99	2.8	1.5	70
57	0.5	0.7	45

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SABLEFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
275	705.1	3.3	111
224	508.1	3.3	108
75	482.9	2.3	79
213	399.9	2.8	125
264	389.8	3.1	80
276	294.3	3.2	108
148	284.5	2.7	112
155	275.9	2.9	116
274	245.9	3.2	132
226	183.6	2.8	89
84	182.9	2.5	108
142	178.3	2.9	135
265	148.8	2.9	84
273	139.3	3.1	101
301	115.2	2.9	150
216	88.9	3.2	89
260	76.3	2.6	84
281	70.7	2.1	107
267	70.7	2.2	85
85	69.4	2.8	94
309	68.4	2.9	138
327	66.5	3.1	170
86	65.0	3.0	107
278	64.4	2.0	150
287	60.2	3.3	114
166	60.1	2.6	73
185	57.5	3.4	189
83	52.7	2.8	105
227	52.0	2.9	77
291	50.7	3.1	115
90	48.5	2.6	108
272	47.6	3.4	107
314	47.4	1.5	105
280	42.6	2.8	94
168	40.2	2.9	130
245	38.9	2.1	159
261	37.0	6.1	74
256	35.1	2.7	73
248	32.3	3.8	108
89	32.2	1.8	111
109	31.9	0.8	68
326	31.3	2.8	181
160	29.8	3.2	186
222	29.5	1.4	59
297	28.6	1.3	0
203	27.8	1.9	85
266	27.6	1.8	88
204	26.0	2.4	60

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SABLEFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
325	26.0	3.8	151
61	25.7	1.2	82
315	24.9	1.1	99
255	22.7	4.3	96
146	22.4	3.6	122
320	22.0	3.2	215
212	22.0	3.3	107
171	20.7	2.5	128
192	20.3	2.1	85
223	19.1	3.8	106
91	19.1	1.7	111
194	18.6	2.9	85
230	18.6	1.7	72
304	18.1	2.5	94
310	17.0	0.8	60
271	16.8	1.4	73
277	15.1	1.9	86
80	14.8	2.7	106
318	12.9	0.9	64
156	12.0	3.0	110
306	12.0	1.0	63
141	12.0	2.5	96
322	11.9	0.9	59
44	11.7	2.4	115
184	10.6	2.6	116
43	10.2	1.7	116
305	9.7	0.8	52
108	9.3	1.5	75
175	9.3	0.8	60
279	9.1	2.3	126
294	8.8	1.0	82
323	8.5	1.2	87
296	8.5	1.5	84
169	8.5	3.5	88
286	8.0	1.3	71
317	7.5	0.8	59
92	6.5	1.2	93
299	5.4	3.9	118
243	4.9	1.2	116
293	4.5	1.1	65
251	4.5	2.4	117
288	3.2	1.0	66
319	3.1	1.1	65
81	2.9	4.3	119
150	2.8	1.7	83
252	2.7	2.7	111
284	2.7	1.6	106
170	2.6	1.7	98

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SABLEFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
118	2.3	1.0	60
290	2.3	1.8	64
136	2.3	1.9	82
240	2.3	1.0	19
82	1.9	1.1	103
298	1.8	1.4	71
316	1.7	0.9	50
270	1.6	2.1	98
313	1.5	0.5	44
122	1.5	0.8	71
242	1.4	1.8	97
329	1.4	0.6	29
197	1.3	0.8	35
292	1.0	0.9	78
236	0.8	1.1	80
238	0.6	0.9	89
105	0.6	0.5	71
63	0.5	0.7	77
97	0.5	0.7	98
295	0.3	0.2	91

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
115	862.6	1.4	52
69	597.5	3.7	66
178	536.4	2.5	40
143	495.4	2.9	82
121	489.7	1.9	66
104	449.8	2.0	84
166	356.4	3.4	73
204	343.2	2.9	60
167	319.0	2.3	42
31	259.9	3.1	46
140	245.6	1.8	51
170	237.3	3.4	98
262	219.0	1.2	61
296	211.5	2.1	84
12	211.0	2.9	81
22	208.9	2.1	43
172	171.3	2.6	47
193	170.0	0.9	42
87	169.2	2.1	74
20	157.5	3.0	65
74	155.8	1.8	61
111	155.0	1.7	74
21	153.7	2.8	56
257	151.4	2.6	43
131	149.7	3.3	103
75	145.8	2.7	79
51	144.4	1.5	46
58	142.0	1.9	68
135	140.9	1.6	72
129	134.4	1.6	69
61	129.2	2.3	82
40	126.9	3.1	50
57	105.2	2.1	45
4	104.4	2.6	56
49	103.8	1.9	55
53	103.0	2.4	60
173	100.1	2.1	77
237	99.9	2.7	92
211	98.0	1.8	79
45	95.9	3.3	54
101	95.7	2.8	58
109	95.6	1.8	68
52	94.4	5.8	43
36	94.3	2.2	81
56	94.0	3.8	80
224	93.5	3.1	108
302	89.7	1.8	56
192	88.0	3.6	85

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
98	87.3	4.1	70
148	85.2	3.5	112
199	83.3	0.8	40
10	82.4	6.3	45
42	79.6	3.0	57
195	74.1	3.2	69
264	68.5	1.6	80
181	68.2	2.1	62
41	64.7	3.5	61
136	62.2	1.9	82
263	61.2	1.2	42
236	60.4	2.5	80
68	60.0	2.2	56
265	59.5	2.1	84
67	58.1	1.4	40
169	57.7	3.3	88
219	56.8	2.0	71
216	54.9	2.9	89
105	54.8	2.1	71
120	52.9	2.7	71
125	52.0	1.8	68
122	51.5	2.8	71
203	51.5	2.3	85
267	49.9	1.5	85
261	48.4	2.6	74
277	47.8	2.6	86
271	47.2	1.4	73
100	46.7	1.8	57
242	46.1	3.1	97
127	45.9	1.8	87
29	42.4	2.0	50
297	41.5	1.9	0
6	41.3	1.5	54
175	41.1	2.0	60
3	41.0	2.4	73
214	40.5	2.1	64
123	40.5	2.4	63
189	40.3	3.5	86
222	40.1	2.1	59
47	39.8	2.7	60
139	39.7	2.0	65
176	39.4	1.8	76
1	38.9	2.9	82
226	38.6	2.0	89
130	38.5	2.7	61
197	38.5	1.8	35
50	37.8	2.9	59
103	37.3	2.5	87

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
150	36.0	1.7	83
230	35.2	1.9	72
15	34.8	1.1	45
64	34.0	2.0	64
255	33.3	4.0	96
198	33.2	0.7	37
180	33.0	2.6	28
196	32.7	2.9	55
66	32.6	8.7	61
85	31.6	2.1	94
99	30.6	2.8	70
298	30.3	1.9	71
108	30.2	2.4	75
141	29.2	3.1	96
184	29.0	2.3	116
107	28.9	2.0	70
44	27.4	3.1	115
39	27.4	3.6	50
137	26.8	2.2	89
266	26.6	1.7	88
319	25.5	2.7	65
245	25.2	3.1	159
227	24.4	1.7	77
270	24.4	2.0	98
254	24.3	3.4	97
82	24.2	2.3	103
174	23.8	3.2	55
171	23.0	3.1	128
35	21.2	2.1	54
238	20.4	1.4	89
248	20.4	3.0	108
80	20.4	1.9	106
97	19.8	5.9	98
142	19.5	2.6	135
241	19.3	3.7	104
251	19.3	3.4	117
258	18.9	0.4	30
272	18.8	2.8	107
119	18.7	2.8	73
275	18.7	3.2	111
276	18.6	0.0	108
95	18.0	2.1	82
46	18.0	1.7	53
260	17.7	1.8	84
303	17.2	1.8	51
114	16.9	2.8	44
314	16.6	5.4	105
322	16.3	2.6	59

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
28	15.1	4.8	105
246	13.9	1.6	65
202	13.8	1.9	43
311	13.2	1.7	32
118	13.1	2.5	60
43	12.5	2.9	116
190	12.5	2.6	86
106	12.3	2.6	79
96	12.2	2.7	86
280	12.2	2.3	94
244	12.1	0.9	83
156	12.0	3.0	110
146	11.6	2.8	122
24	11.3	2.1	43
293	11.3	1.1	65
83	11.3	2.0	105
134	11.0	2.1	65
63	10.7	1.8	77
233	10.6	0.5	23
301	9.8	3.6	150
223	9.6	3.8	106
310	9.6	2.8	60
73	9.5	0.6	43
307	9.3	3.2	38
295	8.9	2.4	91
259	8.9	2.6	68
240	8.7	0.3	19
239	8.5	2.6	108
318	8.5	2.3	64
231	8.4	0.1	11
9	8.4	0.8	47
32	8.4	3.2	36
158	8.3	1.7	67
187	7.5	2.3	72
328	7.5	3.8	69
25	7.3	5.2	76
30	7.0	1.6	45
256	6.8	1.5	73
235	6.4	0.2	25
16	6.3	1.4	57
117	6.2	1.5	54
252	5.8	2.9	111
8	5.7	1.9	55
281	5.7	2.6	107
243	5.6	2.3	116
309	4.9	3.4	138
93	4.9	0.6	59
165	4.8	2.3	36

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
234	4.7	1.7	29
168	4.6	2.6	130
155	4.4	2.1	116
62	4.2	5.9	61
33	4.1	6.1	51
273	4.1	3.2	101
94	3.7	1.4	65
329	3.6	1.2	29
212	3.6	2.4	107
81	3.5	2.6	119
323	3.5	4.8	87
7	3.4	0.8	46
159	3.4	1.2	75
79	3.1	2.3	97
221	2.9	1.1	67
274	2.6	3.6	132
72	2.6	0.4	41
92	2.4	3.2	93
317	2.3	1.1	59
288	2.1	3.4	66
232	2.0	0.7	39
48	2.0	3.2	44
91	1.9	2.7	111
179	1.7	2.7	33
315	1.7	1.2	99
89	1.6	2.5	111
23	1.5	2.3	42
201	1.5	1.4	34
65	1.4	1.8	77
90	1.2	1.8	108
13	1.2	1.4	51
161	1.2	0.6	76
300	1.1	0.1	51
78	0.9	1.6	51
253	0.9	1.1	88
207	0.9	1.4	53
60	0.8	0.5	46
71	0.7	0.5	27
220	0.6	0.9	64
313	0.6	0.9	44
217	0.5	0.5	69
132	0.4	0.0	19
162	0.3	0.1	22
316	0.2	0.1	50
164	0.0	0.0	16
37	0.0	0.0	35
88	0.0	0.0	44

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES WALLEYE POLLOCK

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
213	4048.5	1.1	125
57	2552.3	0.7	45
261	1706.9	1.2	74
101	1524.2	0.9	58
192	1414.9	1.3	85
66	1313.0	0.8	61
181	1293.6	1.2	62
256	1121.9	1.1	73
98	1041.7	1.1	70
190	989.5	1.0	86
131	936.8	0.8	103
69	776.5	0.8	66
244	772.5	0.5	83
212	767.2	0.8	107
194	749.7	0.5	85
255	743.8	1.1	96
173	736.3	1.3	77
143	702.8	1.3	82
68	639.4	0.4	56
180	622.6	0.2	28
148	616.8	1.0	112
103	482.9	1.0	87
189	478.8	1.1	86
176	397.7	1.1	76
99	393.9	0.9	70
254	388.8	0.9	97
187	372.1	1.4	72
169	316.5	0.6	88
58	243.0	1.2	68
195	238.5	1.5	69
226	221.3	0.9	89
252	214.7	0.5	111
171	176.3	1.0	128
196	175.1	1.1	55
239	174.4	0.5	108
311	161.1	0.2	32
325	160.7	0.8	151
146	152.7	1.1	122
230	148.8	1.4	72
216	144.9	1.5	89
209	141.9	0.9	153
174	140.6	1.0	55
130	132.3	0.8	61
97	131.7	1.1	98
224	123.3	0.5	108
241	121.5	0.6	104
299	119.6	0.4	118
65	118.8	0.8	77

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES WALLEYE POLLOCK

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
179	117.8	0.9	33
273	113.1	0.8	101
43	113.0	1.0	116
236	112.3	1.0	80
326	108.0	1.0	181
287	102.5	0.8	114
314	99.0	0.8	105
245	90.3	0.6	159
309	88.3	0.6	138
249	83.5	0.5	159
29	82.7	1.0	50
270	82.6	0.9	98
155	82.1	0.5	116
184	81.8	1.6	116
248	79.6	0.3	108
243	79.5	0.8	116
277	77.5	1.3	86
67	74.6	0.9	40
137	74.1	1.1	89
28	71.6	1.1	105
291	69.1	0.3	115
318	66.3	0.4	64
301	65.0	0.7	150
168	64.8	0.8	130
136	63.8	0.8	82
170	58.0	0.8	98
104	57.6	1.5	84
275	56.5	0.4	111
251	55.6	0.6	117
253	52.8	1.0	88
237	52.4	1.0	92
280	52.4	0.9	94
315	45.0	0.8	99
310	41.7	0.8	60
281	40.4	0.9	107
279	38.1	0.9	126
242	34.2	0.6	97
313	33.8	0.1	44
238	33.4	0.3	89
56	33.2	0.8	80
284	32.8	0.8	106
305	32.4	0.2	52
319	30.3	0.2	65
283	28.9	0.7	107
134	26.7	1.3	65
204	26.0	0.2	60
274	25.3	0.6	132
223	25.1	0.4	106

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES WALLEYE POLLOCK

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
132	24.5	1.0	19
295	23.8	1.1	91
317	23.5	0.5	59
61	22.8	1.2	82
272	21.6	0.8	107
327	19.5	1.3	170
322	19.4	0.6	59
296	18.4	0.7	84
5	18.0	1.1	116
276	17.9	0.7	108
323	17.7	0.6	87
44	17.5	1.4	115
156	15.9	0.9	110
290	15.2	1.0	64
267	13.9	1.0	85
49	12.8	0.9	55
329	11.8	0.1	29
282	11.7	1.1	111
50	11.0	0.9	59
294	10.6	1.2	82
302	10.2	0.1	56
73	9.3	0.6	43
175	9.3	1.1	60
52	9.2	0.9	43
142	8.8	0.5	135
278	8.6	0.8	150
89	7.9	1.2	111
100	7.6	0.4	57
51	7.4	0.4	46
306	6.5	0.2	63
316	6.4	0.1	50
227	6.3	0.8	77
235	6.0	0.1	25
41	6.0	1.0	61
91	5.8	1.2	111
147	5.8	0.6	141
80	5.6	1.2	106
203	5.0	1.2	85
139	4.9	0.6	65
228	4.8	0.0	85
96	4.7	1.2	86
292	4.6	0.7	78
240	4.2	0.1	19
150	3.7	0.9	83
229	3.5	1.2	108
81	3.2	1.0	119
141	3.2	1.6	96
64	3.1	1.1	64

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ATKA MACKEREL

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
10	2347.5	0.8	45
36	3.9	1.2	81
14	2.1	0.5	25
54	0.4	0.2	42
47	0.3	0.5	60

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SHORTSPINE THORNYHEAD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
160	87.9	0.2	186
327	41.4	0.2	170
279	27.2	0.4	126
320	22.5	0.3	215
185	22.0	0.2	189
278	14.3	0.3	150
206	12.9	0.2	196
325	11.0	0.2	151
218	9.0	0.1	177
323	8.5	0.5	87
184	7.3	0.3	116
315	7.0	1.3	99
284	5.7	0.2	106
76	5.7	0.2	240
326	5.6	0.2	181
149	3.2	0.4	277
43	3.1	0.4	116
209	3.1	0.3	153
276	2.4	0.6	108
205	1.7	0.3	161
287	1.7	0.2	114
274	1.6	0.3	132
314	1.4	0.9	105
301	0.3	0.2	150
281	0.3	0.1	107
147	0.3	0.1	141

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ROUGHEYE ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
160	421.1	1.8	186
206	149.0	1.9	196
326	144.5	1.3	181
327	108.9	1.2	170
244	82.9	0.9	83
194	50.5	1.0	85
185	48.5	2.8	189
284	47.3	0.7	106
189	46.0	0.8	86
320	37.9	1.5	215
142	29.1	1.4	135
299	24.1	0.8	118
192	22.6	0.9	85
304	17.8	1.2	94
106	16.3	0.6	79
291	15.7	0.7	115
325	14.1	0.6	151
286	13.7	0.2	71
276	12.4	0.7	108
171	12.2	2.6	128
251	11.6	0.9	117
287	11.4	0.7	114
275	9.7	0.7	111
279	9.1	0.3	126
91	8.5	0.7	111
208	8.2	2.3	201
86	8.0	0.4	107
237	7.4	1.0	92
92	7.3	1.1	93
90	7.3	0.5	108
317	7.2	0.6	59
195	6.9	0.7	69
170	6.6	0.5	98
274	6.5	0.6	132
218	6.4	1.0	177
89	6.2	1.2	111
238	5.8	0.8	89
223	5.4	1.1	106
288	4.9	0.4	66
155	4.7	0.5	116
81	4.7	1.2	119
252	4.0	1.0	111
245	3.9	1.3	159
65	3.8	0.8	77
314	3.8	0.5	105
272	3.8	0.5	107
248	3.5	0.5	108
278	3.5	0.6	150

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ROUGHEYE ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
310	3.4	0.4	60
103	3.3	0.5	87
254	3.3	0.9	97
83	3.3	0.9	105
147	3.2	0.2	141
306	3.2	0.4	63
290	3.2	0.5	64
205	2.8	1.4	161
97	2.7	1.4	98
174	2.7	0.5	55
216	2.5	0.6	89
255	2.4	1.1	96
318	2.4	0.4	64
146	2.3	0.9	122
273	2.0	0.4	101
323	2.0	0.3	87
154	1.7	1.4	79
322	1.7	0.5	59
281	1.7	0.6	107
141	1.6	0.8	96
104	1.5	0.7	84
301	1.5	0.6	150
184	1.5	0.8	116
136	1.5	0.5	82
243	1.5	1.8	116
295	1.5	0.5	91
219	1.3	0.5	71
119	1.2	0.7	73
131	1.1	0.9	103
220	1.1	0.5	64
277	1.0	0.4	86
292	1.0	0.5	78
242	0.7	0.9	97
289	0.6	0.1	64
156	0.6	0.9	110
239	0.6	0.9	108
96	0.6	0.9	86
316	0.6	0.3	50
137	0.5	0.4	89
221	0.5	0.7	67
303	0.5	0.3	51
95	0.5	0.7	82
44	0.4	0.5	115
313	0.4	0.3	44
328	0.2	0.1	69
85	0.2	0.2	94
12	0.1	0.1	81
319	0.0	0.0	65

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC OCEAN PERCH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
152	357.7	0.0	55
61	320.2	0.6	82
279	286.7	0.5	126
109	286.0	0.3	68
148	235.8	0.7	112
155	102.8	1.1	116
107	100.9	0.3	70
85	98.0	0.5	94
9	85.1	0.1	47
43	77.0	0.6	116
209	70.2	0.6	153
219	63.4	0.3	71
80	47.2	0.4	106
44	45.8	0.5	115
248	38.4	1.2	108
83	33.3	0.4	105
147	28.4	0.5	141
185	26.8	0.6	189
246	26.1	0.9	65
79	25.2	0.4	97
82	23.4	0.4	103
280	18.9	0.3	94
275	17.5	0.3	111
212	17.2	0.8	107
113	16.9	0.1	45
81	16.8	0.7	119
93	15.4	0.2	59
157	14.4	0.3	112
146	12.8	0.9	122
213	11.7	0.9	125
78	9.9	0.1	51
104	9.2	0.5	84
108	8.6	0.3	75
170	7.7	0.9	98
120	7.6	0.4	71
215	7.4	0.2	63
325	7.0	0.8	151
273	7.0	0.5	101
293	6.8	0.2	65
298	6.7	0.2	71
210	6.6	0.5	100
278	6.5	0.8	150
217	6.2	0.2	69
19	5.9	0.1	50
276	5.8	0.4	108
100	4.9	0.2	57
216	4.6	0.4	89
156	4.2	0.5	110

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC OCEAN PERCH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
277	4.0	0.8	86
184	3.9	0.5	116
135	3.1	0.2	72
281	2.7	0.2	107
11	2.6	0.2	76
153	2.6	0.3	105
69	2.4	0.2	66
110	2.3	0.1	50
112	2.3	0.1	59
86	2.1	0.6	107
169	2.0	0.8	88
286	1.8	0.2	71
36	1.8	0.6	81
296	1.5	0.2	84
154	1.5	1.1	79
116	1.4	0.1	50
211	1.4	0.3	79
327	1.2	0.6	170
21	1.2	0.1	56
297	1.2	0.2	0
295	1.2	0.3	91
75	1.1	0.2	79
271	1.1	0.2	73
12	1.1	0.2	81
230	1.0	0.2	72
302	1.0	0.1	56
62	1.0	0.7	61
84	1.0	0.5	108
224	0.9	1.1	108
121	0.8	0.3	66
18	0.7	0.2	59
237	0.7	0.9	92
16	0.7	0.1	57
326	0.7	0.6	181
220	0.6	0.2	64
15	0.6	0.5	45
95	0.6	0.2	82
300	0.6	0.1	51
136	0.5	0.2	82
222	0.5	0.2	59
105	0.5	0.2	71
320	0.4	0.5	215
202	0.4	0.1	43
274	0.3	0.2	132
206	0.3	0.5	196
73	0.3	0.1	43
244	0.3	0.4	83
266	0.3	0.4	88

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PACIFIC OCEAN PERCH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
303	0.2	0.2	51
264	0.2	0.2	80
124	0.2	0.1	45
94	0.1	0.2	65
161	0.1	0.0	76
77	0.1	0.2	68
319	0.1	0.1	65
292	0.1	0.1	78
89	0.1	0.1	111
87	0.1	0.1	74
54	0.0	0.0	42
72	0.0	0.0	41
323	0.0	0.0	87

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES DUSKY ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
186	480.7	1.7	60
215	212.7	1.5	63
219	150.6	1.4	71
220	99.1	1.7	64
85	93.0	1.5	94
12	49.0	2.1	81
69	29.2	0.0	66
214	19.3	2.0	64
109	18.2	0.9	68
120	12.7	1.5	71
213	12.2	1.8	125
79	11.3	1.6	97
169	10.5	1.6	88
190	10.3	1.2	86
104	7.9	1.4	84
184	7.6	1.9	116
152	7.3	0.0	55
9	5.6	0.2	47
275	5.3	1.6	111
143	4.9	2.4	82
147	4.3	1.4	141
107	3.9	1.1	70
323	3.3	1.5	87
216	3.2	2.0	89
293	3.0	1.2	65
148	2.8	1.9	112
108	2.5	1.9	75
264	2.3	1.6	80
230	2.3	1.2	72
260	2.2	1.8	84
121	2.1	1.8	66
83	2.0	1.4	105
328	1.9	1.5	69
319	1.8	1.2	65
156	1.8	1.4	110
180	1.6	0.2	28
82	1.5	1.8	103
44	1.3	1.4	115
61	1.3	1.8	82
155	0.9	1.4	116
146	0.9	1.4	122
81	0.9	1.4	119
72	0.9	0.3	41
70	0.6	0.5	36
93	0.6	0.3	59
176	0.5	0.7	76
100	0.2	0.2	57
73	0.1	0.2	43

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES NORTHERN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
152	6934.2	0.0	55
186	2731.3	1.0	60
219	1009.2	0.4	71
109	548.0	0.6	68
215	436.9	0.5	63
220	269.6	0.7	64
9	183.9	0.3	47
113	99.7	0.3	45
12	86.8	0.7	81
78	55.8	0.6	51
85	31.0	0.8	94
156	30.9	0.7	110
112	30.1	0.6	59
293	29.9	0.6	65
11	24.4	1.1	76
217	19.4	0.6	69
157	18.9	0.6	112
246	13.3	0.4	65
214	10.7	1.1	64
93	8.8	0.4	59
264	8.0	0.9	80
80	7.1	0.5	106
72	5.5	0.3	41
116	4.9	0.3	50
73	4.7	0.3	43
69	4.4	0.3	66
36	4.3	1.8	81
44	4.0	0.5	115
107	3.9	0.6	70
153	3.8	1.0	105
319	3.8	0.7	65
19	3.5	0.5	50
192	3.4	0.6	85
82	3.0	0.5	103
302	3.0	0.4	56
61	2.8	0.6	82
62	2.6	0.9	61
81	2.3	0.5	119
222	2.1	0.9	59
43	2.0	0.6	116
79	1.9	0.5	97
221	1.9	0.7	67
124	1.7	0.8	45
134	1.6	1.6	65
154	1.5	1.1	79
16	1.4	0.2	57
143	1.3	0.7	82
83	1.3	0.5	105

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES NORTHERN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
21	1.2	0.9	56
100	1.1	0.4	57
135	1.1	0.3	72
150	1.1	0.7	83
10	0.8	0.5	45
271	0.8	0.6	73
184	0.8	1.1	116
146	0.6	0.5	122
169	0.6	0.2	88
35	0.6	0.1	54
32	0.6	0.1	36
147	0.6	0.4	141
323	0.5	0.7	87
111	0.5	0.7	74
248	0.4	0.5	108
281	0.4	0.5	107
148	0.4	0.2	112
237	0.4	0.5	92
18	0.3	0.5	59
277	0.3	0.5	86
94	0.2	0.2	65
160	0.1	0.0	186
110	0.1	0.1	50
70	0.1	0.0	36
133	0.1	0.0	32
128	0.0	0.0	41

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES HARLEQUIN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
219	587.8	0.3	71
215	332.0	0.3	63
157	40.8	0.2	112
302	17.1	0.1	56
293	14.7	0.2	65
220	13.3	0.3	64
113	10.1	0.2	45
12	8.3	0.4	81
264	7.0	0.3	80
298	5.2	0.2	71
184	1.5	0.6	116
227	1.0	0.5	77
255	1.0	0.7	96
271	0.9	0.2	73
325	0.9	0.3	151
147	0.7	0.2	141
295	0.5	0.2	91
148	0.4	0.2	112
244	0.4	0.5	83
326	0.3	0.3	181
221	0.3	0.5	67
327	0.3	0.5	170
109	0.3	0.2	68
296	0.2	0.3	84
274	0.2	0.3	132
280	0.2	0.2	94
246	0.1	0.2	65
78	0.1	0.2	51
300	0.1	0.1	51

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES PYGMY ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
302	0.1	0.1	56

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SHARPCHIN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
219	204.7	0.2	71
147	12.6	0.2	141
217	7.0	0.1	69
220	2.9	0.3	64
221	2.8	0.1	67
293	2.3	0.1	65
295	0.7	0.2	91
277	0.5	0.2	86
327	0.3	0.5	170
218	0.3	0.5	177
274	0.3	0.2	132
160	0.2	0.2	186
297	0.2	0.1	0
264	0.2	0.1	80
328	0.1	0.1	69
296	0.1	0.1	84

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SHORTRAKER ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
320	275.2	5.6	215
160	76.7	4.0	186
327	75.4	3.9	170
326	54.2	4.8	181
206	5.0	3.6	196

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES OCEAN SHRIMP (PREV. OCEAN PINK)

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
244	8.6	0.0	83
243	7.1	0.0	116
236	4.6	0.0	80
251	3.4	0.0	117
252	3.1	0.0	111
253	2.6	0.0	88
233	0.8	0.0	23

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES SIDESTRIPE SHRIMP

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
245	6.0	0.0	159
251	5.0	0.0	117
171	3.4	0.0	128
243	3.0	0.0	116
142	2.5	0.0	135
252	2.0	0.0	111
224	1.5	0.0	108
327	1.4	0.0	170
223	1.3	0.0	106
131	1.1	0.0	103
287	1.0	0.0	114
241	1.0	0.0	104
244	0.7	0.0	83
168	0.7	0.0	130
325	0.4	0.0	151
185	0.3	0.0	189
90	0.3	0.0	108
239	0.3	0.0	108
209	0.2	0.0	153
248	0.2	0.0	108
253	0.2	0.0	88
249	0.2	0.0	159
242	0.2	0.0	97
218	0.2	0.0	177
86	0.2	0.0	107
89	0.1	0.0	111
236	0.1	0.0	80
315	0.1	0.0	99
92	0.1	0.0	93
237	0.1	0.0	92
160	0.1	0.0	186
127	0.0	0.0	87
233	0.0	0.0	23

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES DUNGENESS CRAB

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
197	18.2	0.7	35
231	10.6	0.0	11
312	0.7	0.9	17
232	0.7	0.2	39
240	0.3	0.5	19
202	0.0	0.0	43

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES BROAD SNOW CRAB (=TANNER CRAB)

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
253	5.8	0.4	88
245	2.3	0.4	159
244	2.1	0.3	83
194	2.1	0.1	85
58	2.0	0.3	68
242	1.8	0.3	97
130	1.2	0.7	61
243	1.1	0.1	116
301	0.9	0.7	150
254	0.8	0.2	97
237	0.5	0.3	92
90	0.3	0.2	108
174	0.3	0.1	55
299	0.2	0.3	118
286	0.2	0.1	71
251	0.1	0.0	117
168	0.1	0.2	130
276	0.1	0.1	108
291	0.1	0.1	115
131	0.1	0.0	103
260	0.1	0.1	84
248	0.0	0.0	108
65	0.0	0.0	77
306	0.0	0.0	63
322	0.0	0.0	59
106	0.0	0.0	79
183	0.0	0.0	59

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES RED KING CRAB

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
178	31.8	5.2	40
180	5.5	4.8	28

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES ICELAND SCALLOP

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
230	1.7	0.0	72
182	0.5	0.0	39
214	0.4	0.0	64
183	0.4	0.0	59
235	0.1	0.1	25
207	0.1	0.0	53
177	0.0	0.0	32

1990 GOA TRIENNIAL SURVEY
F/V PAT SAN MARIE

SPECIES WEATHERVANE SCALLOP

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
51	1.3	0.3	46
49	0.6	0.1	55
197	0.5	0.2	35
50	0.5	0.1	59
127	0.3	0.3	87
179	0.3	0.5	33
182	0.0	0.1	39

SECTION 3

Fishing log for the Green Hope

Station charts of haul numbers plotted adjacent
to their respective geographical locations

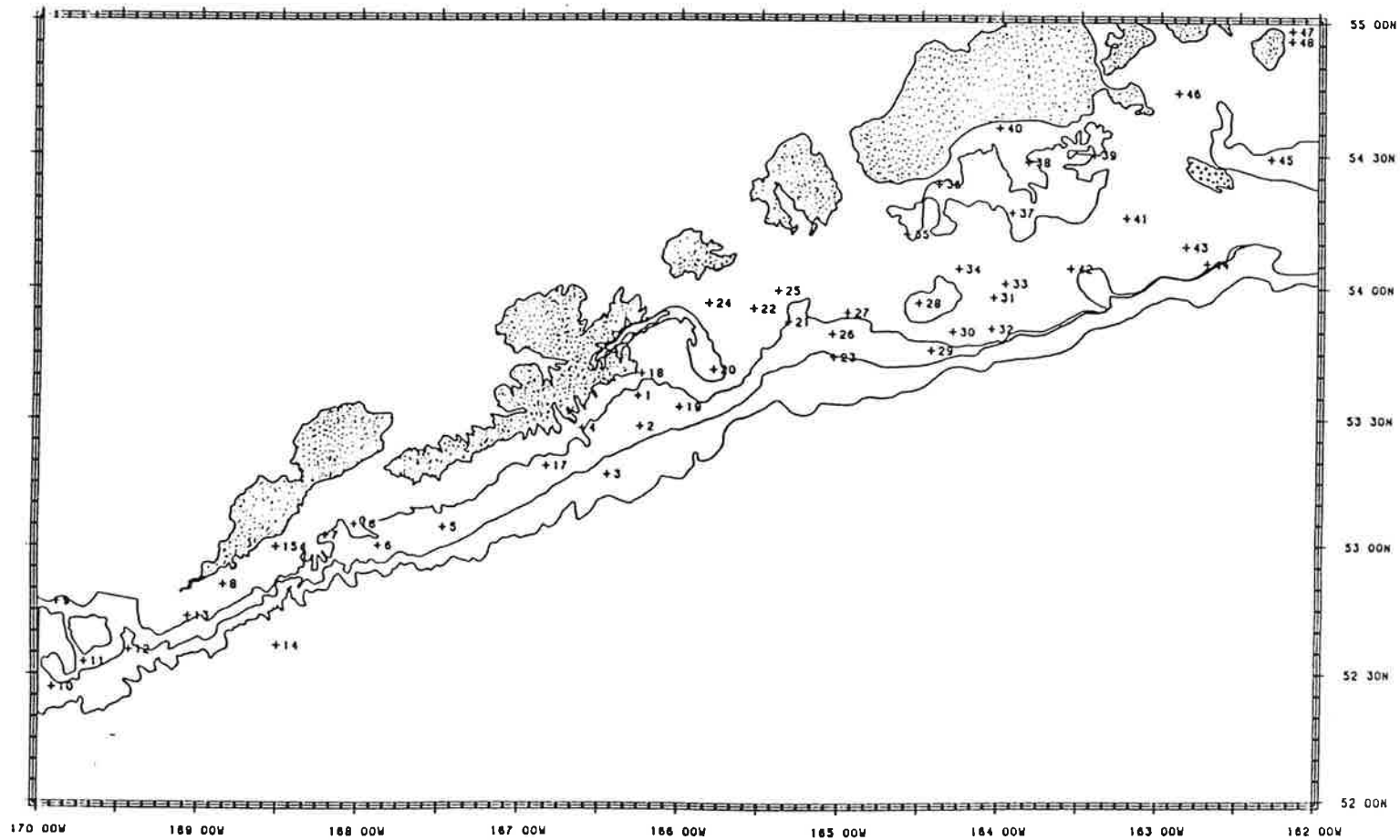


Figure 16. --Stations surveyed by the chartered trawler Green Hope in the Islands of Four Mountains - Unimak I. area, (hauls 1-48).

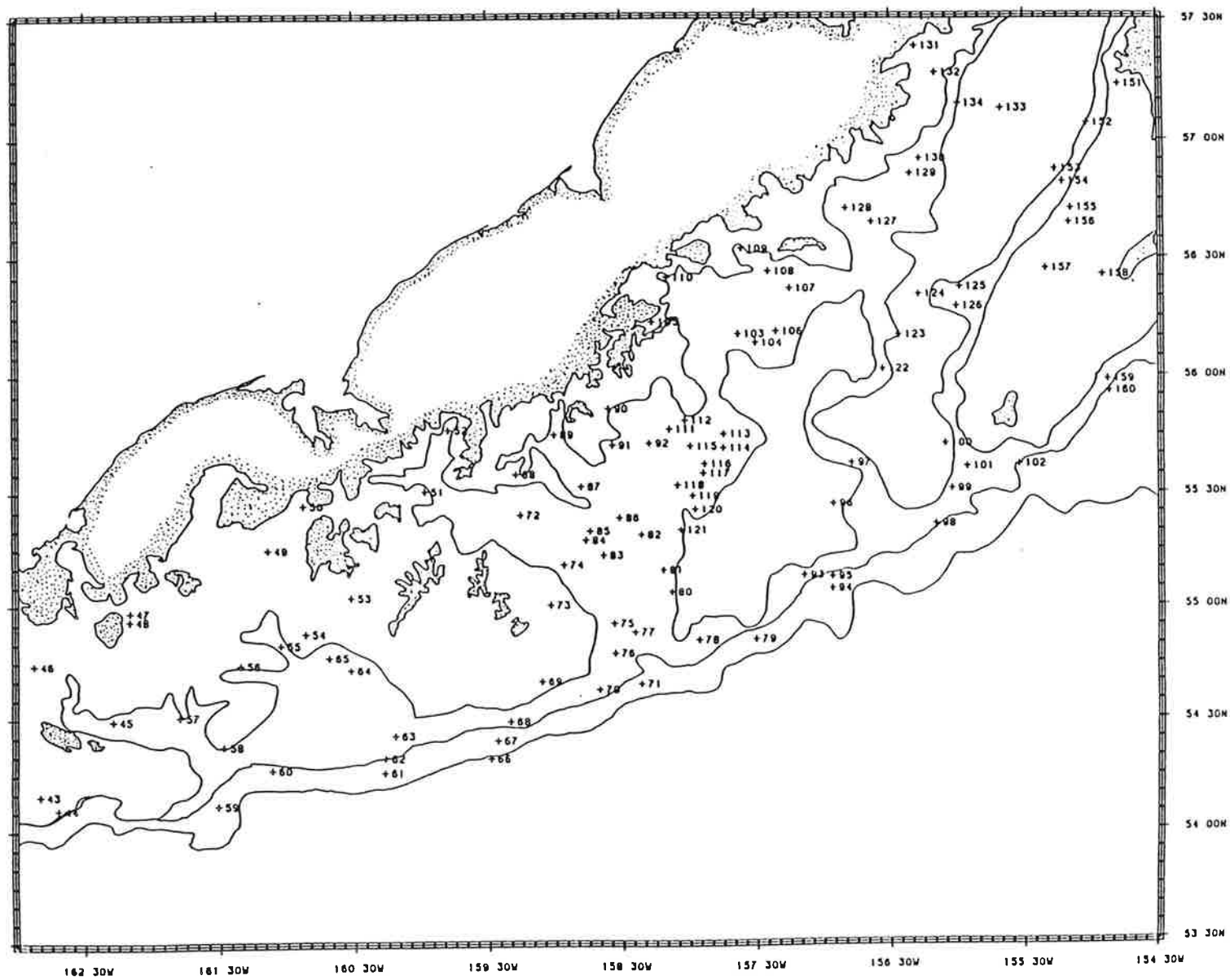


Figure 17. --Stations surveyed by the chartered trawler Green Hope in the Sanak Is.-Kodiak I. area, (hauls 43-134 and 151-160).

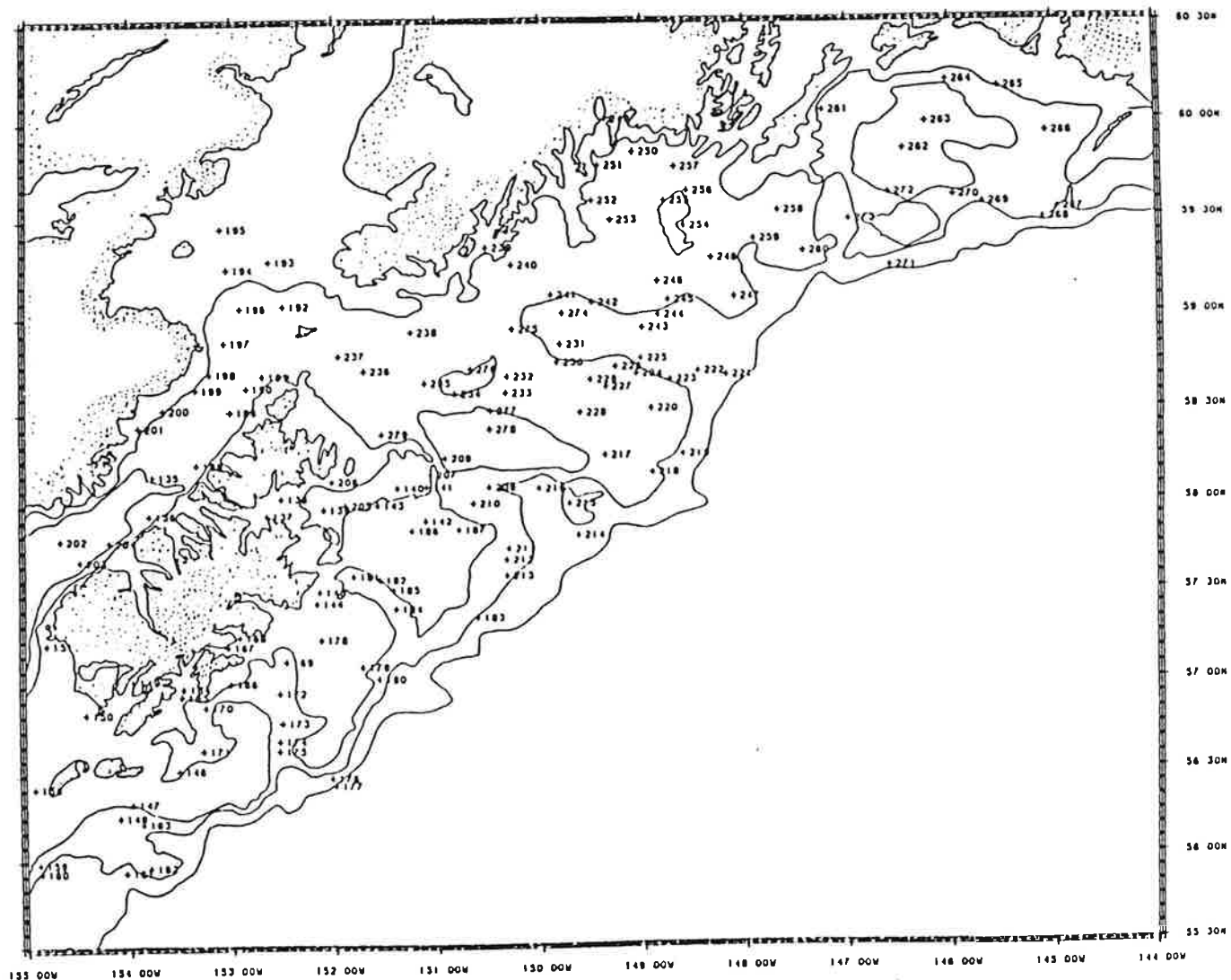


Figure 18. --Stations surveyed by the chartered trawler Green Hope in the Kodiak I.-Kayak I. area, (hauls 135-151 and 158-279).

SECTION 3 (continued)

Fishing log for the Green Hope

Summary listings of species catches by haul

■ Each haul entry includes the latitude, longitude, loran readings, bottom depth in fathoms, duration of tow, distance fished in nautical miles and the catch in kilograms for each major species.

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	1	2	3	4	5	6	7	8	9	10	11
MONTH/DAY/YEAR	6/ 4/90	6/ 4/90	6/ 4/90	6/ 4/90	6/ 5/90	6/ 5/90	6/ 5/90	6/ 5/90	6/ 6/90	6/ 6/90	6/ 6/90
LATITUDE START	53 28.5	53 28.4	53 17.1	53 28.1	53 4.4	53 0.0	53 2.4	52 51.0	52 47.0	52 26.9	52 32.9
LONGITUDE START	166 15.6	166 14.9	166 27.3	166 36.7	167 28.7	167 52.7	168 12.4	168 50.3	169 52.9	169 54.7	169 42.4
LATITUDE END	53 27.9	53 29.1	53 16.7	53 28.6	53 3.4	52 59.0	53 1.5	52 51.1	52 46.1	52 26.2	52 32.7
LONGITUDE END	166 18.4	166 12.7	166 29.8	166 36.3	167 30.6	167 50.7	168 10.3	168 47.6	169 55.4	169 55.4	169 44.8
LORAN START	34841.40	48254.60	17774.10	17808.80	17576.60	17493.40	17453.20	17282.80	17053.80	16940.60	17015.30
LORAN START	48258.70	34840.10	48292.10	48361.50	48547.40	48640.20	48729.20	48848.40	49061.60	49010.40	48986.00
LORAN END	34846.70	48245.10	17766.90	17812.40	17566.50	17493.20	17454.00	17291.30	17040.30	16933.90	17006.30
LORAN END	48271.00	34835.70	48303.20	48360.70	48553.40	48629.00	48718.00	48838.30	49067.60	49010.80	48993.50
GEAR DEPTH	75	79	159	42	61	59	69	45	73	127	77
DURATION IN HOURS	0.50	0.50	0.50	0.25	0.50	0.50	0.52	0.52	0.55	0.28	0.50
DISTANCE FISHED	1.73	1.45	1.57	0.62	1.58	1.60	1.58	1.63	1.74	0.89	1.43
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	1 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	5.0	1.8	0.0	0.1	0.3	0.0	11.8	64.0	18.1
PACIFIC COD	0.0	0.0	2.3	5.9	9.5	55.8	88.5	8.2	437.5	34.9	51.7
SABLEFISH	0.0	0.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	0.0	0.0	41.7	0.0	1.8	0.2	722.1	21.8	20.9	25.9	10.0
HALIBUT	0.0	0.0	0.0	12.2	30.8	61.9	92.5	11.2	38.2	10.7	0.0
FLATHEAD SOLE	0.0	0.0	5.0	0.0	0.0	0.0	20.4	0.7	0.0	2.3	0.0
DOVER SOLE	0.0	0.0	4.1	0.0	0.0	0.0	4.5	0.0	0.0	0.0	0.0
REX SOLE	0.0	0.0	125.6	0.0	0.0	0.0	20.9	0.0	0.0	19.3	0.9
ROCK SOLE	0.0	0.0	1.8	8.2	52.2	112.0	31.3	164.4	51.3	0.2	0.7
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	43.5	3.6	0.0	0.0	0.0	0.0	0.0	1.6	1514.1
ROUGHEYE RKFH	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
THORNYHEADS	0.0	0.0	69.9	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0
NORTHERN RKFH	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.7	59.9
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	19.5	0.0	0.0	0.0	0.0	0.5	0.0	0.0
SCULPINS	0.0	0.0	0.1	0.0	0.9	0.0	3.2	11.8	18.4	1.3	4.4
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	29.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	12	13	14	15	16	17	18	19	20	21	22
MONTH/DAY/YEAR	6/ 6/90	6/ 7/90	6/ 7/90	6/ 7/90	6/ 7/90	6/ 9/90	6/11/90	6/11/90	6/11/90	6/11/90	6/12/90
LATITUDE START	52 35.8	52 43.6	52 55.8	52 55.7	53 5.1	53 19.2	53 40.7	53 32.9	53 41.5	53 52.2	53 55.3
LONGITUDE START	169 25.6	169 3.6	168 29.9	168 30.7	168 1.6	166 50.2	166 14.4	166 0.1	165 47.3	165 19.5	165 32.4
LATITUDE END	52 35.9	52 43.6	52 55.5	52 55.3	53 5.3	53 18.4	53 39.7	53 33.6	53 42.6	53 51.1	53 55.1
LONGITUDE END	169 28.0	169 4.1	168 32.5	168 33.2	168 2.0	166 52.3	166 16.0	166 2.5	165 45.7	165 21.4	165 35.1
LORAN START	17088.30	17202.10	17369.00	17366.30	17496.40	17737.70	17911.40	17899.30	17959.90	18049.80	18045.40
LORAN START	48935.70	48878.00	48782.20	48785.00	48691.10	48406.10	48277.30	48189.10	48139.90	48011.20	48085.90
LORAN END	17080.70	17200.20	17359.80	17356.70	17496.50	17729.30	17903.80	17898.40	17967.70	18042.00	18040.80
LORAN END	48944.80	48880.00	48791.80	48794.00	48693.50	48414.20	48283.30	48202.90	48133.30	48019.50	48100.20
GEAR DEPTH	135	50	51	52	48	58	41	58	65	55	49
DURATION IN HOURS	0.53	0.13	0.55	0.53	0.17	0.55	0.48	0.53	0.52	0.55	0.52
DISTANCE FISHED	1.52	0.34	1.62	1.60	0.35	1.49	1.38	1.62	1.50	1.62	1.61
PERFORMANCE / GEAR	0 /172	7 /172	5 /172	0 /172	5 /172	7 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	41.7	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	2.3	0.0
PACIFIC COD	0.0	0.0	0.0	0.0	0.0	0.0	0.0	121.1	57.2	74.8	358.3
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	18.1	0.0	0.0	21.3	0.0	0.0	25.4	64.9	633.7	403.2	161.0
HALIBUT	0.0	0.0	0.0	47.2	0.0	0.0	46.4	63.3	63.9	44.1	8.6
FLATHEAD SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	14.5	0.2	0.0
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	5.0	2.7	0.0
ROCK SOLE	0.0	0.0	0.0	106.1	0.0	0.0	191.0	81.6	121.1	126.1	130.6
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	247.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
ROUGHEYE RKFH	49.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	15.0	0.0	0.0	5.0	0.0	0.0	0.5	0.0	0.9	6.4	5.4
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	23	24	25	26	27	28	29	30	31	32	33
MONTH/DAY/YEAR	6/12/90	6/14/90	6/14/90	6/14/90	6/14/90	6/17/90	6/17/90	6/17/90	6/17/90	6/17/90	6/17/90
LATITUDE START	53 44.3	53 56.6	53 59.4	53 49.5	53 54.4	53 56.7	53 45.9	53 50.2	53 51.1	53 50.9	54 1.2
LONGITUDE START	165 2.5	165 49.2	165 23.4	165 3.0	164 57.4	164 30.6	164 25.9	164 17.8	164 2.4	164 3.2	163 58.1
LATITUDE END	53 44.6	53 56.0	54 0.5	53 50.6	53 53.7	53 57.1	53 46.9	53 49.0	53 51.1	53 51.0	53 59.8
LONGITUDE END	165 5.1	165 51.7	165 25.2	165 4.9	164 59.4	164 33.0	164 27.0	164 19.6	164 3.0	164 3.4	163 59.0
LORAN START	18038.50	18026.90	18076.00	18060.20	18088.50	18130.30	18092.00	18198.00	18139.40	18137.90	18183.10
LORAN START	47906.80	48178.00	48044.10	47917.30	47893.70	47748.40	47709.10	47669.30	47583.80	47587.70	47569.50
LORAN END	18036.20	18020.60	18078.70	18062.20	18082.90	18129.10	18094.70	18111.60	18138.70	18138.00	18176.80
LORAN END	47921.30	48190.10	48055.50	47929.20	47903.70	47762.10	47716.00	47667.80	47587.30	47589.30	47573.30
GEAR DEPTH	115	43	46	65	53	59	58	48	41	41	40
DURATION IN HOURS	0.52	0.52	0.52	0.52	0.50	0.52	0.43	0.52	0.13	0.08	0.48
DISTANCE FISHED	1.57	1.57	1.53	1.54	1.39	1.45	1.15	1.55	0.37	0.19	1.50
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	5 /172	5 /172	1 /172
POLLOCK	220.4	0.0	0.1	24.9	66.2	55.3	0.0	0.0	0.0	0.0	0.0
PACIFIC COD	18.6	0.0	440.0	91.2	62.1	127.9	85.1	421.4	0.0	0.0	73.5
SABLEFISH	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	21.3	0.0	73.9	366.5	397.3	79.8	181.8	54.0	0.0	0.0	0.0
HALIBUT	0.0	207.3	21.6	21.0	51.8	140.1	25.7	36.0	0.0	0.0	22.0
FLATHEAD SOLE	2.7	0.0	0.0	5.0	0.7	11.8	5.4	0.5	0.0	0.0	0.0
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	46.7	0.0	0.0	95.3	0.2	39.5	0.2	0.0	0.0	0.0	0.0
ROCK SOLE	0.0	5.0	147.9	56.2	157.8	28.6	90.5	85.7	0.0	0.0	28.6
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	19.1	0.0	0.0	3.2	0.0	0.0	17.6	0.0	0.0	0.0	0.2
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
THORNYHEADS	14.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	5.9	0.0	0.0	19.5	0.0	0.0	1154.8	3.2	0.0	0.0	1.6
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	4.5	0.0	0.0	111.2	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	4.1	0.2	2.7	2.3	1.1	0.8	0.9	0.0	0.0	10.9
SKATES	0.0	0.0	0.0	7.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0	2.9
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	34	35	36	37	38	39	40	41	42	43	44
MONTH/DAY/YEAR	6/18/90	6/18/90	6/18/90	6/18/90	6/18/90	6/19/90	6/19/90	6/20/90	6/21/90	6/21/90	6/21/90
LATITUDE START	54 4.4	54 12.1	54 23.4	54 17.0	54 28.6	54 30.3	54 36.2	54 15.9	54 4.6	54 9.4	54 5.7
LONGITUDE START	164 15.8	164 35.2	164 23.4	163 55.7	163 49.7	163 25.0	164 0.7	163 12.6	163 33.5	162 50.1	162 42.1
LATITUDE END	54 4.5	54 11.2	54 22.0	54 17.7	54 27.1	54 31.4	54 36.1	54 15.9	54 6.0	54 9.6	54 6.2
LONGITUDE END	164 13.4	164 33.1	164 24.5	163 57.9	163 51.0	163 23.6	163 58.1	163 13.3	163 34.0	162 52.7	162 43.5
LORAN START	18177.50	18187.70	18244.50	18245.40	18293.10	18318.20	18312.40	18277.90	18219.50	18273.40	18267.00
LORAN START	47673.60	47793.80	47739.40	47571.10	47546.30	47400.10	47618.20	47317.30	47431.30	47181.00	47132.40
LORAN END	18180.40	18186.30	18237.80	18246.10	18286.90	18323.30	18313.90	18277.30	18224.30	18272.00	18267.70
LORAN END	47660.40	47780.50	47744.30	47584.80	47552.60	47392.40	47602.60	47321.30	47435.00	47196.60	47140.80
GEAR DEPTH	44	58	56	60	48	61	26	34	52	39	44
DURATION IN HOURS	0.50	0.48	0.52	0.52	0.53	0.52	0.52	0.15	0.53	0.53	0.37
DISTANCE FISHED	1.38	1.55	1.59	1.49	1.60	1.44	1.51	0.40	1.45	1.56	0.98
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	6 /172	0 /172	0 /172	7 /172
POLLOCK	11.8	9.1	1332.1	18.6	1.4	14.1	7.3	0.0	2.3	0.0	0.0
PACIFIC COD	103.0	0.0	528.3	28.6	883.6	200.9	13.2	0.0	23.6	24.5	0.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
ARROWTOOTH FL.	78.9	5.0	135.0	156.5	79.8	181.9	37.2	0.0	23.1	0.7	0.0
HALIBUT	49.8	33.6	38.4	44.8	113.8	36.0	70.2	0.0	4.9	9.0	0.0
FLATHEAD SOLE	9.5	0.0	5.5	53.1	62.1	18.1	0.0	0.0	34.5	0.5	0.0
DOVER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	0.0	0.0	0.0	1.8	0.2	4.5	0.0	0.0	4.1	0.0	0.0
ROCK SOLE	172.8	32.2	144.2	0.9	142.9	12.2	104.3	0.0	88.9	41.5	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	25.9	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	2.3	0.1	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	20.4	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	2.3	1.0	40.4	1.4	5.9	4.5	0.5	0.0	0.0	7.7	0.0
SKATES	0.0	0.0	2.8	0.0	0.0	0.0	50.8	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	45	46	47	48	49	50	51	52	53	54	55
MONTH/DAY/YEAR	6/21/90	6/22/90	6/22/90	6/22/90	6/22/90	6/23/90	6/23/90	6/23/90	6/26/90	6/26/90	6/26/90
LATITUDE START	54 29.4	54 44.3	54 58.2	55 6.9	55 14.9	55 28.6	55 30.4	55 46.4	55 2.2	54 52.6	54 49.6
LONGITUDE START	162 18.0	162 53.2	162 10.2	162 10.4	161 8.4	160 52.6	159 58.3	159 47.8	160 31.4	160 51.6	161 2.8
LATITUDE END	54 29.5	54 43.2	54 58.9	55 5.5	55 14.1	55 27.3	55 29.5	55 46.0	55 3.0	54 53.9	54 50.6
LONGITUDE END	162 20.7	162 51.5	162 12.4	162 11.1	161 6.3	160 50.9	160 0.3	159 48.9	160 29.0	160 49.9	161 0.4
LORAN START	18360.10	18385.60	18449.60	18473.70	18516.00	18552.00	18568.30	18600.70	18498.30	18467.50	18455.60
LORAN START	46995.90	47214.60	46951.40	46953.30	46559.80	46453.10	46103.70	46023.70	46330.40	46461.30	46531.30
LORAN END	18358.90	18383.20	18450.30	18469.50	18514.80	18549.50	18566.00	18599.90	18500.50	18471.40	18459.00
LORAN END	47012.40	47203.60	46965.70	46957.60	46546.30	46443.10	46117.20	46031.30	46318.80	46450.20	46516.30
GEAR DEPTH	81	49	39	35	44	17	34	67	44	43	55
DURATION IN HOURS	0.72	0.52	0.50	0.53	0.52	0.52	0.53	0.28	0.48	0.52	0.50
DISTANCE FISHER	1.60	1.47	1.45	1.48	1.47	1.63	1.47	0.72	1.24	1.63	1.66
PERFORMANCE / GEAR	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172	0 / 172
POLLOCK	283.0	30.8	30.8	362.3	7.3	0.0	0.0	419.6	0.1	0.1	3.9
PACIFIC COD	45.8	215.0	195.0	250.9	119.7	0.0	3.2	13.6	0.0	1.8	35.8
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	287.1	134.3	10.0	8.2	369.7	0.0	0.0	156.9	8.4	108.0	244.0
HALIBUT	210.1	108.6	8.0	172.3	84.8	135.4	2.4	0.0	30.9	33.1	16.9
FLATHEAD SOLE	73.9	304.8	90.7	401.7	190.1	0.0	0.0	124.7	0.0	5.9	51.5
DOVER SOLE	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
REX SOLE	1.8	0.4	1.4	0.1	0.0	0.0	0.0	1.1	0.0	0.0	3.6
ROCK SOLE	0.7	113.4	46.7	27.5	12.2	231.8	48.1	0.0	79.2	36.1	13.2
STARRY FLOUNDER	0.0	12.7	507.1	1133.7	74.4	0.2	0.0	19.1	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	46.8	0.0	8.6	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	1.1	27.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	8.2	22.7	79.4	5.9	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	327.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	11.6	44.1	47.2	11.9	24.9	3.7	0.9	0.5	7.4	0.2	4.9
SKATES	0.0	0.0	0.0	0.0	0.0	18.6	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	3.6	1.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	56	57	58	59	60	61	62	63	64	65	66
MONTH/DAY/YEAR	6/26/90	6/27/90	6/27/90	6/27/90	6/27/90	6/28/90	6/28/90	6/28/90	6/28/90	6/28/90	6/29/90
LATITUDE START	54 44.2	54 30.4	54 22.6	54 6.6	54 16.3	54 15.6	54 19.4	54 25.4	54 42.9	54 43.3	54 22.3
LONGITUDE START	161 20.9	161 48.2	161 28.5	161 31.0	161 6.9	160 16.7	160 16.6	160 11.9	160 31.7	160 41.3	159 29.0
LATITUDE END	54 43.5	54 30.5	54 23.0	54 6.1	54 16.6	54 15.5	54 18.0	54 27.0	54 44.0	54 44.9	54 22.6
LONGITUDE END	161 23.2	161 45.8	161 30.3	161 38.7	161 4.6	160 14.2	160 14.1	160 13.1	160 29.3	160 40.4	159 27.0
LORAN START	18433.00	18380.40	18369.20	18320.10	18363.20	18388.50	18389.80	18416.00	18451.60	18448.60	18427.50
LORAN START	46648.40	46814.60	46698.30	46716.20	46567.90	46269.50	46266.20	46235.80	46342.90	46402.70	45981.50
LORAN END	18429.70	18382.50	18368.80	18317.10	18365.80	18389.50	18398.40	18419.50	18455.30	18452.80	18429.20
LORAN END	46661.70	46799.30	46708.40	46730.70	46554.10	46255.20	46251.90	46241.80	46327.90	46396.70	45969.80
GEAR DEPTH	90	76	44	250	176	290	120	75	62	64	283
DURATION IN HOURS	0.50	0.52	0.33	0.50	0.48	0.50	0.50	0.52	0.53	0.52	0.50
DISTANCE FISHER	1.50	1.49	1.57	1.52	1.42	1.42	1.99	1.75	1.75	1.61	1.18
PERFORMANCE / GEAR	0 /172	0 /172	1 /172	1 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	22.7	10.9	0.0	0.0	2.7	0.0	0.0	10.9	29.0	0.9	0.7
PACIFIC COD	5.0	32.7	0.0	0.0	1.8	0.0	0.0	256.3	37.6	46.7	0.0
SABLEFISH	0.0	0.0	0.0	0.0	33.3	0.0	7.7	0.0	0.0	0.7	13.2
ARROWTOOTH FL.	438.2	175.3	0.0	0.0	10.2	1.4	16.1	234.3	1024.0	810.1	0.0
HALIBUT	6.4	106.1	0.0	0.0	0.0	0.0	0.0	0.0	21.1	185.7	0.0
FLATHEAD SOLE	109.1	36.5	0.0	0.0	0.0	0.0	0.0	2.7	56.0	26.3	0.0
DOVER SOLE	5.9	1.9	0.0	0.0	29.3	5.7	2.7	10.4	0.4	0.0	29.0
REX SOLE	3.9	15.0	0.0	0.0	5.7	0.0	1.0	99.3	6.4	0.5	0.0
ROCK SOLE	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	53.1	0.0	1.6	0.0	72.6	0.0	0.0	0.5	0.0
ROUGHEYE RKFH	15.0	1.1	0.0	0.0	43.5	0.0	0.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	59.2	4.3	1.7	0.0	0.0	0.0	24.5
NORTHERN RKFH	0.0	1.9	403.9	0.0	0.0	0.0	5.0	0.0	0.0	1.4	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	16.6	0.0	0.0	0.0	0.0	0.0	1.4
DUSKY RKFH	0.0	0.0	1.4	0.0	0.0	0.0	2.5	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
OTHER RF	0.0	1.7	49.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	2.3	6.0	0.2	0.0	3.2	0.0	0.5	0.0	0.1	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	67	68	69	70	71	72	73	74	75	76	77
MONTH/DAY/YEAR	6/29/90	6/29/90	6/29/90	6/29/90	6/30/90	7/ 1/90	7/ 1/90	7/ 1/90	7/ 2/90	7/ 2/90	7/ 2/90
LATITUDE START	54 24.1	54 29.2	54 39.7	54 37.6	54 39.1	55 24.1	55 10.1	55 10.8	54 55.2	54 51.4	54 52.9
LONGITUDE START	159 25.9	159 20.2	159 6.1	158 40.2	158 21.5	159 15.5	159 2.0	158 56.0	158 33.6	158 33.1	158 24.2
LATITUDE END	54 24.6	54 28.9	54 38.8	54 38.4	54 40.2	55 24.7	55 10.9	55 10.7	54 55.2	54 51.5	54 54.1
LONGITUDE END	159 23.9	159 17.9	159 7.5	158 42.3	158 19.8	159 12.9	159 2.1	158 57.9	158 31.0	158 31.7	158 23.1
LORAN START	18433.00	18447.50	18476.20	18481.00	18490.70	18565.50	18541.40	18544.10	18519.50	18511.80	18517.60
LORAN START	45962.30	45921.80	45826.90	45676.30	45560.40	45834.80	45765.60	45729.80	45609.70	45612.40	45557.00
LORAN END	18455.30	18446.60	18473.50	18481.80	18493.20	18566.90	18542.70	18543.50	18520.00	18512.30	18520.60
LORAN END	45949.60	45909.40	45837.40	45686.90	45549.60	45818.60	45766.40	45740.90	45594.40	45604.10	45548.80
GEAR DEPTH	202	93	48	64	160	92	83	90	85	88	100
DURATION IN HOURS	0.52	0.50	0.43	0.45	0.50	0.50	0.35	0.35	0.50	0.25	0.50
DISTANCE FISHED	1.27	1.52	1.33	1.32	1.33	1.49	0.71	1.02	1.48	0.79	1.49
PERFORMANCE / GEAR	0 /172	0 /172	1 /172	0 /172	0 /172	0 /172	1 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	1.4	5.7	0.3	0.8	5.9	1.5	0.0	30.8	2.7	1.8	0.0
PACIFIC COD	0.0	273.7	0.0	73.9	0.0	0.0	75.3	300.1	244.3	60.8	30.8
SABLEFISH	24.3	36.7	0.0	0.0	26.3	0.0	0.0	16.8	0.0	0.0	5.4
ARROWTOOTH FL.	0.0	489.7	21.3	32.7	4.3	281.5	316.6	244.7	303.0	99.3	68.0
HALIBUT	0.0	70.3	56.6	29.7	0.0	23.1	51.4	33.1	14.8	61.6	8.7
FLATHEAD SOLE	0.0	0.7	0.0	0.0	0.0	72.1	13.6	0.0	0.3	0.0	0.7
DOVER SOLE	10.4	10.7	0.0	0.0	0.7	0.0	4.3	1.1	21.8	17.7	6.4
REX SOLE	0.0	33.3	0.0	0.0	0.5	3.9	12.2	13.2	82.6	46.7	44.5
ROCK SOLE	0.0	0.0	18.1	0.1	0.0	0.0	4.3	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	152.2	0.0	8.6	0.0	0.0	1.6	13.6	25.4	34.9	35.4
ROUGHEYE RKFH	7.7	0.0	0.0	0.0	31.5	2.7	0.0	0.0	0.0	0.0	1.4
THORNYHEADS	15.9	0.7	0.0	0.0	19.3	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.7	0.0	52.6	0.0	0.0	0.0	8.4	22.7	11.3	2.5
SHORTRAKER RF	14.1	0.0	0.0	0.0	10.2	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	1.4	0.0	0.0	0.0	0.0	0.0	12.5	6.4	0.0	0.9
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.9	0.5	5.2	0.0	0.2	0.1	8.6	7.9	2.7	4.5	14.1
SKATES	1.4	0.0	0.0	0.0	0.0	24.7	0.0	0.0	2.0	0.0	1.6
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	1.4	1.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	78	79	80	81	82	83	84	85	86	87	88
MONTH/DAY/YEAR	7/ 2/90	7/ 2/90	7/ 3/90	7/ 3/90	7/ 3/90	7/ 3/90	7/ 3/90	7/ 4/90	7/ 4/90	7/ 4/90	7/ 4/90
LATITUDE START	54 50.8	54 51.0	55 3.5	55 9.4	55 18.8	55 13.4	55 17.4	55 19.8	55 23.3	55 31.6	55 34.8
LONGITUDE START	157 55.6	157 30.2	158 7.8	158 11.5	158 21.3	158 38.2	158 46.1	158 44.2	158 31.0	158 48.3	159 17.5
LATITUDE END	54 50.7	54 51.4	55 4.9	55 11.1	55 20.2	55 14.8	55 18.8	55 21.2	55 25.1	55 31.9	55 35.5
LONGITUDE END	157 54.2	157 28.6	158 9.1	158 12.8	158 23.5	158 38.8	158 44.5	158 42.8	158 30.6	158 45.6	159 19.4
LORAN START	18521.80	18528.60	18542.50	18552.50	18567.20	18553.50	18559.20	18564.40	18573.30	18584.80	18585.20
LORAN START	45388.80	45239.20	45443.20	45456.70	45503.80	45615.50	45658.40	45643.30	45557.40	45654.10	45839.70
LORAN END	18521.60	18530.40	18544.60	18555.90	18569.50	18556.30	18562.30	18567.50	18576.70	18585.80	18585.90
LORAN END	45381.60	45229.30	45448.70	45461.80	45514.80	45616.90	45646.70	45632.70	45551.40	45637.10	45851.00
GEAR DEPTH	70	190	68	71	78	108	102	98	80	85	43
DURATION IN HOURS	0.25	0.50	0.50	0.50	0.52	0.50	0.50	0.52	0.50	0.52	0.38
DISTANCE FISHED	0.81	1.13	1.48	1.90	1.95	1.59	1.72	1.71	1.87	1.52	1.20
PERFORMANCE / GEAR	1 /172	7 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.1	0.0	0.1	0.0	0.0	21.3	0.0	2.0	2.0	0.0	0.2
PACIFIC COD	6.1	0.0	56.7	147.1	47.2	0.0	0.0	0.9	34.0	0.0	0.0
SABLEFISH	0.0	0.0	0.0	0.0	1.1	29.0	16.3	8.2	244.0	0.0	0.0
ARROWTOOTH FL.	10.2	0.0	788.1	1732.4	493.1	159.7	293.5	215.9	367.9	323.2	0.1
HALIBUT	34.1	0.0	20.5	51.0	16.6	0.0	5.4	5.4	41.5	0.0	87.9
FLATHEAD SOLE	0.0	0.0	2.7	20.0	15.4	47.6	49.9	54.0	30.6	40.8	0.0
DOVER SOLE	0.0	0.0	12.2	37.8	4.5	4.1	0.0	0.9	5.7	0.5	0.0
REX SOLE	0.0	0.0	97.1	190.2	47.2	2.5	1.8	0.1	10.0	0.3	0.1
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLACE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	4.5	0.0	0.1	3.2	5.4	0.0	0.0	0.0	6.1	0.0	1.8
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	1.8	4.5	4.1	0.5	5.4	7.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.5	0.0	4.5	0.0	0.2	0.0	6.8	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	1.9	0.0	14.7	7.3	0.1	0.7
SKATES	0.0	0.0	15.0	0.0	0.0	0.0	1.8	1.8	8.2	13.6	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.8	0.7
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	89	90	91	92	93	94	95	96	97	98	99
MONTH/DAY/YEAR	7/ 5/90	7/ 5/90	7/ 5/90	7/ 5/90	7/ 6/90	7/ 6/90	7/ 6/90	7/ 6/90	7/ 6/90	7/ 7/90	7/ 7/90
LATITUDE START	55 45.1	55 51.6	55 42.3	55 42.7	55 7.9	55 4.4	55 7.6	55 26.9	55 37.6	55 21.6	55 30.9
LONGITUDE START	159 0.3	158 36.1	158 34.2	158 17.8	157 8.6	156 56.1	156 55.9	156 55.5	156 47.2	156 9.4	156 2.3
LATITUDE END	55 44.7	55 50.6	55 43.0	55 41.2	55 7.8	55 4.4	55 7.9	55 26.9	55 35.8	55 22.6	55 30.0
LONGITUDE END	158 58.3	158 34.3	158 32.0	158 18.8	157 11.1	156 53.7	156 58.8	156 55.5	156 47.5	156 9.4	156 1.2
LORAN START	18605.70	18620.50	18605.50	18608.40	18564.20	18561.00	18566.40	18597.40	18614.30	18597.40	18611.50
LORAN START	45720.30	45553.60	45552.40	45449.30	45080.90	45012.80	45007.10	44963.40	44891.50	44702.40	44638.60
LORAN END	18605.80	18618.70	18607.10	18605.90	18562.90	18561.50	18565.80	18597.40	18611.90	18599.10	18610.50
LORAN END	45704.10	45543.90	45537.80	45457.20	45096.30	44992.20	45023.30	44963.50	44896.90	44699.90	44633.60
GEAR DEPTH	69	69	64	69	73	202	111	50	64	108	110
DURATION IN HOURS	0.50	0.50	0.50	0.52	0.50	0.52	0.52	0.00	0.52	0.50	0.50
DISTANCE FISHED	1.45	1.62	1.43	1.55	1.48	1.34	1.58	0.01	1.63	1.17	1.10
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	6 /172	0 /172	7 /172	0 /172
POLLOCK	186.4	508.0	0.0	0.0	0.0	4.8	8.2	0.0	0.5	0.0	8.2
PACIFIC COD	240.2	8.6	20.4	6.8	496.9	0.0	93.0	0.0	160.1	0.0	37.6
SABLEFISH	0.0	0.9	0.0	14.5	0.0	98.9	154.2	0.0	0.0	0.0	6.8
ARROWTOOTH FL.	157.8	126.1	509.2	287.6	1334.6	22.7	78.0	0.0	255.4	0.0	56.7
HALIBUT	636.5	14.3	35.8	101.8	48.0	0.0	0.0	0.0	30.5	0.0	33.3
FLATHEAD SOLE	3.4	26.8	6.8	11.1	0.0	0.0	0.0	0.0	0.0	0.0	10.4
DOVER SOLE	0.0	0.0	0.0	0.0	23.9	25.9	22.2	0.0	51.5	0.0	24.0
REX SOLE	2.3	0.0	6.8	1.8	31.8	14.5	37.6	0.0	37.6	0.0	65.3
ROCK SOLE	3.6	1.1	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	2.9	0.4	0.0	0.7	1.3	0.5	70.3	0.0	0.0	0.0	119.1
ROUGHEYE RKFH	0.0	1.8	0.0	0.0	0.0	64.4	0.0	0.0	0.0	0.0	1.1
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	24.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.7	0.0	0.0	0.0	3.2	0.0	16.8	0.0	0.0	0.0	10.9
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	47.2	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	4.1	0.0	0.0	0.0	0.0	0.0	1.6	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	6.0	9.5	0.0	6.4	0.0	0.0	0.1	0.0	13.6	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	33.4	0.0	0.0	0.0	9.5	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	100	101	102	103	104	105	106	107	108	109	110
MONTH/DAY/YEAR	7/ 7/90	7/ 7/90	7/ 7/90	7/ 8/90	7/ 8/90	7/ 8/90	7/11/90	7/11/90	7/11/90	7/11/90	7/11/90
LATITUDE START	55 42.6	55 36.6	55 37.2	56 10.6	56 8.4	56 13.6	56 11.3	56 22.1	56 26.4	56 32.3	56 24.8
LONGITUDE START	156 5.2	155 55.4	155 32.3	157 38.0	157 30.2	158 16.4	157 21.0	157 15.0	157 24.7	157 36.6	158 9.8
LATITUDE END	55 44.1	55 37.0	55 36.6	56 11.3	56 8.1	56 13.9	56 12.3	56 21.4	56 25.3	56 33.7	56 24.8
LONGITUDE END	156 5.5	155 57.6	155 40.0	157 40.1	157 32.5	158 15.2	157 23.3	157 18.2	157 26.8	157 37.9	158 12.7
LORAN START	18628.10	18620.60	18623.00	18654.10	18650.80	18654.80	18657.20	18669.70	18674.20	18680.60	18669.70
LORAN START	44626.80	44584.40	44504.80	45157.90	45111.50	45402.10	45046.80	45000.00	45051.80	45124.20	45350.90
LORAN END	18629.70	18620.80	18623.00	18654.50	18651.30	18655.40	18658.70	18669.00	18673.60	18682.20	18669.70
LORAN END	44624.60	44596.10	44493.20	45169.80	45125.80	45394.40	45059.30	45016.10	45067.30	45130.00	45369.40
GEAR DEPTH	134	109	79	57	77	43	81	71	91	58	87
DURATION IN HOURS	0.52	0.47	0.47	0.39	0.51	0.24	0.52	0.50	0.51	0.52	0.51
DISTANCE FISHED	1.22	1.28	1.22	1.16	1.42	0.73	1.61	1.40	1.33	1.61	1.58
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	1.4	0.0	0.1	105.2	9.5	0.0	97.1	1316.1	541.1
PACIFIC COD	176.6	32.2	1.8	5.0	32.7	5.5	115.7	450.9	338.4	86.5	92.5
SABLEFISH	947.4	2.7	0.0	0.0	0.0	0.0	0.0	0.0	6.8	0.0	0.0
ARROWTOOTH FL.	7250.0	350.2	49.9	97.5	43.5	0.0	214.5	486.7	171.9	596.4	164.7
HALIBUT	0.0	14.5	14.1	48.7	31.0	0.0	104.0	37.8	73.4	0.0	30.4
FLATHEAD SOLE	36.2	0.4	0.0	2.7	24.5	1.2	39.9	64.0	55.3	231.9	411.9
DOVER SOLE	337.2	6.8	0.7	0.0	0.5	0.0	1.4	3.6	5.1	0.0	5.4
REX SOLE	321.1	42.9	0.0	0.1	0.2	0.0	0.4	3.4	0.7	0.0	0.7
ROCK SOLE	0.0	0.0	0.0	13.2	0.7	0.0	0.0	0.0	0.4	18.4	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	15.4	1.6	4.1	2.7	0.0	1.8	0.0	2.5	0.0	0.0
ROUGHEYE RKFH	0.0	0.4	0.0	0.0	0.0	0.0	0.7	4.1	4.3	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	7.5	4.5	4.1	0.9	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	88.3	0.0	3.6	2.7	4.7	0.0	4.1	6.4	0.4	0.0	8.6
SKATES	0.0	1.8	0.0	7.7	0.0	0.0	0.0	0.0	7.1	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.5	0.0	0.5
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	111	112	113	114	115	116	117	118	119	120	121
MONTH/DAY/YEAR	7/12/90	7/12/90	7/12/90	7/12/90	7/12/90	7/14/90	7/14/90	7/14/90	7/14/90	7/14/90	7/14/90
LATITUDE START	55 46.3	55 48.6	55 41.1	55 41.4	55 41.9	55 35.3	55 34.9	55 33.9	55 29.0	55 25.4	55 25.0
LONGITUDE START	158 8.7	158 1.8	157 44.5	157 51.7	157 52.4	157 53.0	157 53.7	158 5.2	157 58.4	157 57.2	158 3.6
LATITUDE END	55 44.9	55 47.6	55 42.2	55 41.4	55 43.0	55 35.3	55 34.4	55 32.8	55 27.2	55 26.5	55 24.8
LONGITUDE END	158 10.8	158 4.1	157 46.7	157 51.7	157 54.4	157 53.0	157 56.2	158 3.5	157 59.5	157 59.0	158 0.6
LORAN START	18615.60	18620.20	18611.10	18610.70	18611.50	18600.70	18600.10	18596.00	18589.50	18583.70	18581.80
LORAN START	45386.60	45339.40	45241.00	45285.20	45289.40	45303.30	45308.20	45379.70		45345.10	45382.60
LORAN END	18612.90	18618.30	18612.70	18610.70	18612.60	18600.70	18598.80	18594.70	18586.90	18585.41	18582.20
LORAN END	45402.20	45356.50	45252.60	45285.20	45300.80	45303.30	45325.10	45371.30		45353.60	45364.30
GEAR DEPTH	65	59	73	68	67	0	71	73	64	56	62
DURATION IN HOURS	0.52	0.50	0.52	0.01	0.51	0.00	0.50	0.51	0.52	0.52	0.52
DISTANCE FISHED	1.94	1.72	1.74	0.00	1.45	0.00	1.55	1.30	1.90	1.53	1.70
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	5 /172	0 /172	5 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	0.0	0.0	3.2	0.0	0.0	0.0	2.5	6.8	0.2	2.3	0.0
PACIFIC COD	106.1	0.0	101.4	0.0	142.7	0.0	23.1	12.2	95.3	1.4	950.5
SABLEFISH	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	15.4	0.0	3.9
ARROWTOOTH FL.	1187.0	2894.0	1193.6	0.0	2215.7	0.0	262.6	681.1	543.7	120.4	1115.2
HALIBUT	6.8	82.9	60.3	0.0	54.5	0.0	0.0	8.6	20.8	8.1	162.2
FLATHEAD SOLE	19.5	0.0	26.8	0.0	49.4	0.0	32.2	33.6	24.5	0.5	16.9
DOVER SOLE	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	59.4	5.0	36.7
REX SOLE	10.0	0.0	0.3	0.0	27.4	0.0	0.5	0.5	147.4	5.4	93.3
ROCK SOLE	3.6	32.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.5	2.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	1.6	0.0	4.9	0.0	0.4	0.0	0.0	0.0	47.6
ROUGHY RKFH	0.0	0.0	0.5	0.0	0.0	0.0	3.9	0.3	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	90.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	122	123	124	125	126	127	128	129	130	131	132
MONTH/DAY/YEAR	7/15/90	7/15/90	7/15/90	7/15/90	7/15/90	7/16/90	7/16/90	7/16/90	7/16/90	7/17/90	7/17/90
LATITUDE START	56 1.7	56 10.4	56 20.6	56 22.4	56 17.5	56 41.1	56 42.6	56 51.4	56 55.2	57 23.1	57 16.6
LONGITUDE START	156 33.3	156 26.0	156 17.3	155 58.9	156 0.4	156 38.4	156 49.9	156 21.1	156 17.0	156 18.7	156 9.9
LATITUDE END	56 2.6	56 10.9	56 20.7	56 23.4	56 18.6	56 41.0	56 43.5	56 50.9	56 53.5	57 23.7	57 17.2
LONGITUDE END	156 32.9	156 24.0	156 14.9	155 56.5	156 1.8	156 38.9	156 52.7	156 18.7	156 18.1	156 17.1	156 11.2
LORAN START	18649.30	18660.40	18673.20	18675.80	18670.40	18692.80	18693.50	32894.20	32870.20	32736.00	32753.90
LORAN START	44757.70	44695.50	44623.00	44501.80	44521.60	44732.20	44806.60	44605.70	44577.00	44575.50	44519.60
LORAN END	18650.80	18661.00	18672.80	18677.20	18672.20	18692.60	18695.00	32892.60	32879.60	32730.60	32752.60
LORAN END	44753.20	44681.00	44606.30	44483.80	44528.20	44735.00	44823.70	44590.70	44584.70	44565.70	44527.80
GEAR DEPTH	107	138	152	117	121	80	58	100	95	11	103
DURATION IN HOURS	0.50	0.50	0.50	0.52	0.51	0.14	0.52	0.52	0.52	0.35	0.33
DISTANCE FISHED	1.19	1.27	1.63	1.81	1.96	0.29	1.76	1.41	1.72	0.98	0.97
PERFORMANCE / GEAR	1 /172	0 /172	0 /172	0 /172	0 /172	5 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	218.6	192.8	49.7	22.2	4.1	12.5	253.6	64.8	41.3	0.1	44.2
PACIFIC COD	33.6	54.9	0.0	11.1	0.0	5.0	113.4	8.2	18.1	1.5	21.8
SABLEFISH	0.0	6.8	11.8	33.1	21.3	0.0	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	196.9	158.5	59.0	319.3	719.3	58.5	197.8	156.9	237.7	0.0	159.9
HALIBUT	7.4	1.8	6.9	12.9	26.5	0.0	74.6	14.8	21.9	24.7	0.0
FLATHEAD SOLE	133.4	3.2	0.0	15.0	25.9	19.7	12.5	14.1	14.1	0.0	38.3
DOVER SOLE	28.1	5.9	5.9	35.4	8.6	1.1	0.3	7.7	22.0	0.0	2.7
REX SOLE	65.8	3.6	1.4	14.1	10.2	0.1	3.9	0.0	10.9	0.0	0.3
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	61.5	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.8	0.0	0.0
ROUGHEYE RKFH	0.0	2.0	1.1	14.1	5.0	0.0	0.0	0.9	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0
SCULPINS	1.8	7.4	5.0	0.0	0.0	0.0	0.2	0.0	5.4	2.0	0.0
SKATES	1.6	11.6	6.8	13.6	50.8	0.0	6.4	0.0	0.0	0.0	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.5	0.9	0.3	0.0	0.0	0.0	0.1	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	133	134	135	136	137	138	139	140	141	142	143
MONTH/DAY/YEAR	7/17/90	7/17/90	7/18/90	7/18/90	7/24/90	7/24/90	7/25/90	7/25/90	7/25/90	7/25/90	7/25/90
LATITUDE START	57 7.7	57 8.9	58 9.8	57 56.7	57 56.4	58 2.1	57 58.2	58 5.3	58 5.5	58 6.2	57 59.5
LONGITUDE START	155 40.4	155 59.6	153 46.2	153 47.8	152 39.1	152 30.6	152 5.8	151 22.7	151 16.6	151 6.3	151 34.1
LATITUDE END	57 8.4	57 10.2	58 8.4	57 55.8	57 57.8	58 2.8	57 58.2	58 5.2	58 6.4	58 7.9	58 0.7
LONGITUDE END	155 41.4	155 59.0	153 45.5	153 49.4	152 38.7	152 29.0	152 4.6	151 19.8	151 16.8	151 6.7	151 32.1
LORAN START	32745.30	32772.70	32266.10	32332.90	11311.30	11386.10	11397.50	11622.00	11650.70	11697.60	11519.60
LORAN START	44325.10	44451.50	43679.00	43637.80	31418.50	31437.80	31385.10	31365.40	31359.40	31347.20	31349.00
LORAN END	32744.00	32765.00	32271.70	32339.80	11327.20	11396.70	11400.04	11632.50	11688.10	11712.30	11539.10
LORAN END	44331.50	44446.80	43668.40	43643.70	31425.60	31440.20	31383.20	31360.50	31364.30	31357.40	31352.60
GEAR DEPTH	152	109	106	109	63	106	96	73	82	72	55
DURATION IN HOURS	0.30	0.46	0.51	0.52	0.50	0.50	0.17	0.50	0.23	0.50	0.50
DISTANCE FISHED	0.84	1.42	1.43	1.27	1.45	1.03	0.62	1.58	0.90	1.72	1.59
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	1 /160	0 /160	1 /160	0 /160	0 /160	0 /160	0 /160
POLLOCK	22.7	119.3	192.8	164.0	604.2	388.3	1153.9	433.6	1200.9	1544.7	10.2
PACIFIC COD	11.8	343.8	5.0	58.3	134.3	59.0	5.4	100.2	110.8	61.1	0.0
SABLEFISH	3.6	39.9	1.4	7.9	0.0	2.1	9.8	11.8	0.0	149.7	0.0
ARROWTOOTH FL.	22.7	502.1	341.1	108.6	242.7	244.9	124.7	235.9	274.0	525.9	68.5
HALIBUT	0.0	0.0	0.0	0.0	98.2	65.8	18.7	24.7	30.1	6.6	28.9
FLATHEAD SOLE	2.7	9.1	99.3	2.5	95.5	137.4	18.1	44.0	83.6	89.1	17.6
DOVER SOLE	0.0	7.7	0.0	12.0	1.2	0.0	2.6	38.6	64.1	169.5	2.5
REX SOLE	0.1	9.8	0.5	30.2	12.7	3.9	0.0	25.9	33.4	68.1	4.5
ROCK SOLE	0.0	0.0	0.0	0.8	37.2	1.6	0.0	0.0	0.0	0.0	3.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	17.2	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLATICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0	0.0
ROUGHEYE RKFH	1.8	23.8	15.4	0.0	0.0	5.3	8.3	0.0	0.0	1.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.3	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0
SHORTRAKER RF	5.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.9	0.0	0.0	0.0	0.0	26.3	0.0	5.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	6.4	20.6	0.2	0.0	38.4	13.0	0.0	0.5	0.0	8.8	0.0
SKATES	0.0	35.4	0.0	1.4	0.0	9.8	0.0	0.0	0.0	7.5	0.0
SHARKS	0.0	142.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	1.6	0.0	0.5	1.5	0.2	0.7	0.0	0.0	0.3
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.4	11.3	3.1	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.7	0.1	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	144	145	146	147	148	149	150	151	152	153	154
MONTH/DAY/YEAR	7/27/90	7/27/90	7/28/90	7/28/90	7/28/90	7/29/90	7/29/90	7/29/90	7/29/90	7/29/90	7/30/90
LATITUDE START	57 29.7	57 30.6	56 31.0	56 19.8	56 14.9	57 1.4	56 50.5	57 13.7	57 4.1	56 52.4	56 49.2
LONGITUDE START	152 9.9	152 8.3	153 30.9	153 58.4	154 5.7	153 57.6	154 24.7	154 47.7	155 1.9	155 16.2	155 12.9
LATITUDE END	57 29.8	57 30.3	56 33.2	56 18.9	56 16.5	56 59.9	56 51.6	57 13.7	57 3.4	56 51.1	56 48.6
LONGITUDE END	152 9.8	152 8.6	153 24.9	154 0.6	154 5.1	153 58.8	154 26.1	154 47.7	155 3.7	155 17.5	155 15.4
LORAN START	11086.30	11101.80	32679.90	43784.70	32816.70	43656.30	43850.70	43971.00	44071.80	44178.80	44162.10
LORAN START	31239.60	31242.10	43554.10	32784.70	43842.30	32605.80	32696.70	32629.80	32698.00	32775.50	32784.10
LORAN END	11087.30	11097.80	32679.90	43800.30	32809.50	43666.90	43857.20	43971.00	44084.20	44189.40	44178.80
LORAN END	31239.80	31240.80	43554.10	32792.20	43833.70	32614.50	32694.20	32630.00	32703.90	32784.00	32791.10
GEAR DEPTH	32	31	51	58	72	84	33	40	113	125	105
DURATION IN HOURS	0.05	0.13	0.50	0.50	0.50	0.50	0.33	0.03	0.50	0.50	0.50
DISTANCE FISHED	0.06	0.36	1.46	1.55	1.57	1.67	1.32	0.04	1.16	1.56	1.54
PERFORMANCE / GEAR	5 /160	7 /160	0 /160	1 /160	0 /160	0 /160	0 /160	6 /160	0 /160	0 /160	0 /160
POLLOCK	0.0	0.0	1.8	0.0	0.0	420.5	437.8	0.0	162.8	101.2	53.4
PACIFIC COD	0.0	0.0	15.9	5.4	212.7	65.3	4.9	0.0	185.5	3.2	48.0
SABLEFISH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	9.5	10.4
ARROWTOOTH FL.	0.0	0.0	232.7	24.9	816.5	13.6	26.3	0.0	542.0	204.6	1036.1
HALIBUT	0.0	23.5	90.2	0.0	22.1	0.0	31.6	0.0	41.2	24.5	25.2
FLATHEAD SOLE	0.0	0.0	3.6	0.0	18.1	161.9	150.6	0.0	44.5	31.3	41.1
DOVER SOLE	0.0	0.0	1.4	0.0	26.8	0.5	0.0	0.0	3.3	7.7	5.5
REX SOLE	0.0	0.0	17.2	0.0	137.4	0.6	0.0	0.0	1.4	1.9	0.0
ROCK SOLE	0.0	5.4	10.4	1.4	0.0	0.0	0.0	0.0	4.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	8.6	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	9.5
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.8	10.9	14.1
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	14.5	0.0	0.0	0.0	0.0	0.0	0.0	1.4
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	1.4	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	2.1	6.9	0.0	0.0	6.1	0.0
SKATES	0.0	0.0	0.0	0.0	0.0	0.0	58.2	0.0	0.0	2.8	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.3	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.5	0.1	0.0	0.1	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	8.7	0.0	0.0	1.2	1.6	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.5	1.9	0.0
SCALLOP	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	155	156	157	158	159	160	161	162	163	164	165
MONTH/DAY/YEAR	7/30/90	7/30/90	7/30/90	7/30/90	8/ 1/90	8/ 1/90	8/ 2/90	8/ 2/90	8/ 2/90	8/ 3/90	8/ 3/90
LATITUDE START	56 42.6	56 38.9	56 27.0	56 25.5	55 58.9	55 55.9	55 55.8	55 57.3	56 12.7	56 58.7	56 56.1
LONGITUDE START	155 9.2	155 10.0	155 20.6	154 54.9	154 52.7	154 52.0	154 2.3	153 48.3	153 52.3	153 28.0	153 29.2
LATITUDE END	56 44.1	56 40.4	56 28.8	56 26.1	56 0.4	55 54.6	55 55.4	55 57.6	56 14.1	56 57.7	56 55.4
LONGITUDE END	155 10.1	155 10.5	155 20.9	154 54.9	154 53.2	154 54.3	154 4.9	153 51.4	153 52.2	153 28.6	153 26.7
LORAN START	44149.50	44161.00	44251.60	44096.70	44157.70	44163.80	43894.90	43817.80	43778.20	43478.79	43493.00
LORAN START	32807.20	32825.10	32895.20	32856.80	32961.20	32972.80	32887.10	32857.30	32803.20	32571.70	32584.10
LORAN END	44152.40	44161.00	44250.00	44095.20	44156.60	44180.50	43909.60	43832.30	43772.30	43485.60	43480.00
LORAN END	32801.90	32819.40	32888.20	32854.40	32956.60	32981.80	32892.90	32861.40	32797.30	32577.00	32583.00
GEAR DEPTH	42	36	28	12	85	138	209	78	66	68	74
DURATION IN HOURS	0.50	0.50	0.50	0.15	0.50	0.50	0.50	0.52	0.50	0.28	0.50
DISTANCE FISHED	1.63	1.49	1.78	0.56	1.49	1.79	1.50	1.79	1.44	1.05	1.55
PERFORMANCE / GEAR	0 /160	0 /160	0 /160	7 /160	0 /160	0 /160	0 /160	0 /160	0 /160	0 /160	0 /160
POLLOCK	968.9	0.1	0.1	0.0	0.1	91.2	0.0	0.0	0.0	456.8	808.3
PACIFIC COD	460.7	18.6	0.1	0.0	176.0	165.1	0.0	0.1	0.0	49.4	33.1
SABLEFISH	0.0	0.0	0.0	0.0	135.2	46.7	0.0	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	6355.1	126.8	0.0	0.0	93.4	123.4	16.8	0.7	95.7	176.0	357.0
HALIBUT	125.2	49.7	13.2	0.0	24.6	0.0	0.0	4.1	48.5	0.0	27.1
FLATHEAD SOLE	101.6	137.4	0.0	0.0	0.0	0.2	0.0	0.0	0.0	169.0	152.9
DOVER SOLE	392.9	15.0	0.0	0.0	9.8	14.1	14.1	0.0	0.0	6.8	0.0
REX SOLE	124.0	40.8	0.0	0.0	70.3	15.4	0.0	0.0	0.0	5.0	5.9
ROCK SOLE	21.7	0.6	13.6	0.0	0.0	0.0	0.0	6.8	16.2	13.6	6.8
STARRY FLOUNDER	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	2.3
ALASKA PLAICE	0.0	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	384.6	1.4	0.0	1.3	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.8	13.6	0.0	0.0	1.8	1.7
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	72.6	15.9	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	2.3	0.0	0.0	6.8	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	8.2	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	0.0	1.5	0.2	0.0	0.0	0.0	4.1
SKATES	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	2.3	0.0	0.0
SHARKS	68.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	1.8	0.1	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.5
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	1.0	0.1	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	166	167	168	169	170	171	172	173	174	175	176
MONTH/DAY/YEAR	8/ 3/90	8/ 3/90	8/ 3/90	8/ 4/90	8/ 4/90	8/ 4/90	8/ 5/90	8/ 5/90	8/ 5/90	8/ 5/90	8/ 5/90
LATITUDE START	57 0.3	57 10.4	57 15.6	57 7.4	56 52.5	56 37.8	56 56.9	56 46.9	56 40.8	56 37.5	56 28.1
LONGITUDE START	153 0.5	153 2.0	152 55.1	152 27.9	153 15.2	153 16.8	152 32.0	152 30.6	152 32.2	152 32.4	152 1.6
LATITUDE END	57 0.1	57 10.5	57 14.5	57 6.8	56 52.5	56 37.8	56 55.7	56 45.3	56 39.6	56 36.8	56 29.3
LONGITUDE END	153 2.1	152 59.4	152 54.2	152 28.7	153 15.1	153 15.9	152 34.0	152 29.7	152 33.0	152 30.5	152 0.3
LORAN START	43314.80	43286.90	43231.50	43124.20	43425.80	43493.10	43195.70	43241.40	43278.40	43295.70	43243.90
LORAN START	32523.10	32480.70	32448.70	32445.00	32578.90	32643.20	32495.60	32534.90	32562.80	32576.50	32568.20
LORAN END	43324.20	43270.70	43229.00	43130.80	43425.00	43488.80	43210.00	43246.30	43287.50	43292.50	43234.50
LORAN END	32526.40	32476.10	32452.20	32448.90	32578.60	32642.00	32503.50	32540.90	32569.00	32576.80	32561.50
GEAR DEPTH	41	66	53	69	95	79	86	80	74	85	134
DURATION IN HOURS	0.25	0.50	0.30	0.22	0.02	0.17	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHED	0.88	1.43	1.18	0.78	0.07	0.48	1.62	1.74	1.31	1.33	1.41
PERFORMANCE / GEAR	1 /160	0 /160	0 /160	0 /160	6 /160	0 /160	0 /160	0 /160	1 /160	0 /160	0 /160
POLLOCK	1.5	163.3	305.7	1440.1	0.0	1072.9	283.3	189.0	1157.1	159.7	594.2
PACIFIC COD	0.0	51.6	88.0	26.9	0.0	27.5	0.0	25.4	173.5	2.3	11.8
SABLEFISH	26.8	0.0	0.0	0.0	0.0	0.0	13.6	13.6	1.1	1.8	0.0
ARROWTOOTH FL.	34.5	676.9	78.0	284.7	0.0	108.3	729.0	857.2	177.8	148.3	13.8
HALIBUT	6.4	66.7	4.1	77.5	0.0	0.0	52.7	73.4	30.2	24.7	57.8
FLATHEAD SOLE	0.0	1360.2	171.0	71.9	0.0	23.0	85.6	44.2	24.2	7.5	0.1
DOVER SOLE	0.0	0.0	0.2	30.7	0.0	3.2	0.0	0.0	46.6	12.2	6.8
REX SOLE	0.0	0.0	13.2	101.6	0.0	0.9	1.8	4.4	182.9	74.4	2.7
ROCK SOLE	58.1	0.7	30.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	2.1	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	0.0	12.7
ROUGHEYE RKFH	0.0	2.7	0.0	0.0	0.0	14.1	42.2	0.0	0.0	0.0	2.7
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.8	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	3.3	3.0	25.0	0.0	0.0	0.0	0.2	0.5	25.4	0.0	12.3
SKATES	0.0	87.4	0.0	0.0	0.0	0.0	17.6	4.4	4.6	0.0	0.0
SHARKS	0.0	55.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	1.1	0.3	3.4	0.0	0.0	0.0	3.3	16.3	0.5	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	68.8	4.5	0.0	0.0	0.0	4.4	0.0	0.2	0.0	0.0
SIDE STRIPE SHRIMP	0.0	1.5	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	177	178	179	180	181	182	183	184	185	186	187
MONTH/DAY/YEAR	8/ 5/90	8/ 6/90	8/ 6/90	8/ 6/90	8/ 8/90	8/ 8/90	8/ 9/90	8/ 9/90	8/ 9/90	8/ 9/90	8/10/90
LATITUDE START	56 25.6	57 14.6	57 5.5	57 1.6	57 35.7	57 34.5	57 21.6	57 24.7	57 31.2	57 50.9	57 51.1
LONGITUDE START	151 59.6	152 7.3	151 43.3	151 33.7	151 48.4	151 33.2	150 36.1	151 23.6	151 25.3	151 14.1	150 46.8
LATITUDE END	56 25.7	57 13.5	57 4.9	57 3.0	57 34.9	57 34.9	57 20.6	57 25.9	57 32.1	57 51.2	57 51.1
LONGITUDE END	151 59.6	152 11.7	151 43.9	151 34.0	151 46.6	151 33.8	150 39.3	151 25.3	151 26.6	151 16.7	150 49.4
LORAN START	43249.90	11040.90	11146.60	11182.80	11237.80	11304.00	11514.90	11294.90	11322.10	11525.00	11654.60
LORAN START	32574.20	31157.60	31071.70	31035.50	31239.80	31210.70	31049.70	31142.90	31180.50	31272.10	31232.70
LORAN END	43249.90	11040.90	11143.60	11183.00	11240.50	11303.60	11598.00	11292.50	11320.90	11516.40	11642.10
LORAN END	32574.20	31157.60	31069.50	31043.60	31232.70	31213.80	31047.70	31152.00	31187.30	31278.20	31236.40
GEAR DEPTH	247	42	42	70	77	42	137	93	43	36	44
DURATION IN HOURS	0.00	0.33	0.10	0.50	0.50	0.17	0.50	0.50	0.33	0.50	0.50
DISTANCE FISHED	0.13	1.46	0.69	1.45	1.29	0.52	1.46	1.50	1.13	1.47	1.37
PERFORMANCE / GEAR	5 /160	0 /160	7 /160	0 /160	0 /160	0 /160	0 /160	0 /160	0 /160	0 /160	0 /160
POLLOCK	0.0	0.9	0.1	0.0	616.7	39.9	113.9	1083.9	0.0	1.0	0.1
PACIFIC COD	0.0	43.4	0.5	28.1	102.1	54.0	9.3	5.0	0.0	130.2	11.1
SABLEFISH	0.0	0.0	0.0	0.0	3.2	0.0	8.9	0.0	0.0	0.0	0.0
ARROWTOOTH FL.	0.0	0.1	0.0	118.8	175.5	471.1	58.5	124.4	0.0	21.3	1.7
HALIBUT	0.0	147.4	2.7	83.6	28.8	14.4	0.0	0.0	182.8	67.6	191.5
FLATHEAD SOLE	0.0	0.0	0.0	2.7	267.2	23.6	4.1	29.6	0.0	0.0	0.0
DOVER SOLE	12.7	2.5	0.0	0.0	40.8	0.0	27.9	127.4	0.0	0.0	0.0
REX SOLE	1.8	0.0	0.0	4.4	194.1	0.0	20.0	20.7	0.0	0.0	0.0
ROCK SOLE	0.0	149.9	1.3	69.2	0.0	76.2	0.0	0.0	273.1	35.8	40.8
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	141.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	34.9	0.0	0.0	0.0	3.2
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.2	0.0	0.0	0.0
THORNYHEADS	13.6	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	41.7	0.0	1.5	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.6	0.0	14.5	0.0	5.0	0.0	0.0	0.0	17.7
SKATES	0.0	0.0	0.0	0.0	8.2	0.0	2.2	7.4	0.0	0.0	7.7
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.4	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	188	189	190	191	192	193	194	195	196	197	198
MONTH/DAY/YEAR	8/12/90	8/12/90	8/12/90	8/12/90	8/13/90	8/13/90	8/13/90	8/13/90	8/14/90	8/14/90	8/14/90
LATITUDE START	58 13.5	58 30.5	58 40.9	58 41.7	59 3.6	59 17.4	59 15.0	59 27.7	59 3.0	58 52.5	58 42.5
LONGITUDE START	153 20.1	153 0.3	152 51.0	152 41.4	152 29.2	152 37.5	153 2.2	153 6.0	152 54.4	153 3.8	153 12.3
LATITUDE END	58 14.9	58 31.8	58 41.3	58 43.2	59 3.5	59 16.5	59 14.2	59 27.0	59 3.1	58 51.0	58 40.9
LONGITUDE END	153 18.3	152 58.6	152 50.6	152 40.6	152 26.4	152 39.7	153 4.2	153 6.5	152 54.0	153 5.0	153 12.7
LORAN START	32213.10	32103.60	32040.10	32024.90	31901.30	31839.10	31877.50	31814.20	31931.10	31996.70	32057.60
LORAN START	43557.00	43559.80	43582.60	43551.10	43636.90	43743.50	43819.00	43901.70	43722.70	43699.90	43679.20
LORAN END	32203.70	32095.20	32037.80	32016.40	31898.80	31845.90	31884.20	31818.50	31930.10	32005.80	32066.60
LORAN END	43555.30	43560.00	43583.70	43557.30	43627.00	43746.20	43821.60	43899.60	43721.80	43696.10	43671.50
GEAR DEPTH	119	92	85	112	75	38	36	22	81	88	90
DURATION IN HOURS	0.50	0.50	0.17	0.50	0.50	0.50	0.50	0.27	0.50	0.50	0.50
DISTANCE FISHED	1.72	1.55	0.42	1.58	1.46	1.57	1.33	0.75	0.24	1.63	1.69
PERFORMANCE / GEAR	0 /160	0 /160	6 /160	0 /160	0 /160	0 /160	0 /160	1 /160	7 /160	0 /160	0 /160
POLLOCK	209.9	88.8	0.1	158.3	45.8	0.9	0.1	4.1	0.0	14.8	235.2
PACIFIC COD	34.0	15.0	0.0	144.9	0.9	1.0	4.9	6.8	0.0	56.7	129.7
SABLEFISH	2.3	0.0	0.0	7.6	0.0	0.0	0.0	0.0	0.0	1.2	0.8
ARROWTOOTH FL.	553.0	374.2	1.4	836.0	32.2	0.0	4.3	0.8	0.0	317.5	148.3
HALIBUT	9.8	45.2	0.0	0.0	0.0	3.7	27.5	0.0	0.0	6.8	51.1
FLATHEAD SOLE	21.9	78.2	0.9	25.8	0.0	0.0	0.0	0.1	0.0	31.8	59.0
DOVER SOLE	0.0	0.0	0.0	41.6	0.4	0.0	0.0	0.0	0.0	21.5	17.6
REX SOLE	7.3	0.1	0.0	12.2	0.3	0.0	0.0	0.0	0.0	0.6	5.9
ROCK SOLE	0.0	0.0	0.0	0.0	0.6	18.1	15.6	6.8	0.0	0.0	0.5
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.7	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	68.9	0.0	2.4	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	2.3	16.3	10.6	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.7	0.9
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.1	0.0	1.8	0.2	0.0	0.0	8.0	0.0	2.0	2.6
SKATES	8.2	9.3	0.0	8.4	0.0	10.0	49.1	18.9	0.0	29.2	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	5.0	0.0	9.6	0.0	0.0	0.0
TANNER CRAB	0.8	1.0	0.5	0.0	0.9	0.0	0.0	0.0	0.0	0.0	1.6
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.0	1.0	0.0
PINK SHRIMP	6.4	11.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	4.8
SIDE STRIPE SHRIMP	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	199	200	201	202	203	204	205	206	207	208	209
MONTH/DAY/YEAR	8/14/90	8/14/90	8/15/90	8/15/90	8/15/90	8/15/90	8/18/90	8/18/90	8/19/90	8/19/90	8/19/90
LATITUDE START	58 37.6	58 31.2	58 25.8	57 48.5	57 41.4	57 47.8	57 59.6	58 7.7	58 9.8	58 10.1	58 5.3
LONGITUDE START	153 20.6	153 39.8	153 54.1	154 39.4	154 28.1	154 10.9	151 53.1	152 0.9	151 3.6	150 55.0	150 29.4
LATITUDE END	58 38.6	58 30.1	58 25.6	57 47.0	57 42.7	57 49.2	58 0.9	58 7.5	58 9.9	58 10.2	58 5.1
LONGITUDE END	153 17.9	153 41.5	153 50.7	154 38.1	154 26.1	154 9.4	151 50.8	152 0.4	151 4.9	150 56.6	150 27.6
LORAN START	32092.90	32149.90	32195.30	32448.90	32466.30	32410.00	32166.40	32139.20	32060.90	32049.00	32040.70
LORAN START	43688.50	43746.60	43872.90	43941.50	43854.20	43755.60	43147.10	43213.10	43134.30	43128.20	43091.30
LORAN END	32084.50	32157.90	32192.50	32454.30	32456.60	32401.09	32158.00	32139.40	32061.60	32050.60	32039.50
LORAN END	43681.90	43750.00	43876.90	43930.30	43844.20	43749.60	43150.90	43210.80	43136.30	43130.00	43089.80
GEAR DEPTH	71	47	48	124	113	127	83	31	69	82	99
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.50	0.50	0.17	0.25	0.35	0.40
DISTANCE FISHED	1.72	1.46	1.77	1.64	1.68	1.59	1.68	0.32	0.68	0.89	0.94
PERFORMANCE / GEAR	0 /160	0 /160	0 /160	0 /160	0 /160	0 /160	0 /172	1 /172	0 /172	0 /172	0 /172
POLLOCK	361.2	299.5	67.4	110.2	215.0	237.2	2640.9	0.0	7.3	469.5	916.8
PACIFIC COD	242.2	13.8	24.6	38.1	30.8	4.5	137.9	0.9	24.9	17.1	12.7
SABLEFISH	2.2	6.8	0.7	10.4	0.0	20.4	88.5	0.0	26.5	29.0	47.6
ARROWTOOTH FL.	150.8	48.1	32.7	99.3	284.9	231.3	2481.1	0.3	286.2	1579.4	235.0
HALIBUT	57.2	64.7	19.2	16.5	16.6	0.0	50.8	0.0	6.6	75.7	9.0
FLATHEAD SOLE	44.5	59.9	24.5	35.8	41.3	11.3	186.5	0.1	11.6	188.7	142.3
DOVER SOLE	14.5	0.8	0.0	0.0	0.0	0.5	11.3	0.0	20.0	223.1	76.0
REX SOLE	7.8	2.5	1.9	1.3	0.4	9.1	0.0	0.0	29.5	301.0	213.5
ROCK SOLE	0.0	1.8	6.6	0.0	0.0	0.0	0.0	51.7	2.9	0.0	0.0
STARRY FLOUNDER	0.0	0.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	43.5	11.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	12.7	15.0	0.0	5.0	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.5	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0	1.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	4.3	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	7.3
SKATES	0.0	113.9	9.1	18.6	0.0	3.2	32.2	0.0	0.0	0.0	4.1
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	244.0	0.0	0.0	0.0	0.0
TANNER CRAB	1.5	0.1	0.0	4.1	0.2	0.1	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.5	0.5	0.0	4.5	5.4	2.0	1.5	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	9.1	29.9	0.2	0.0	0.0	0.0	0.0	0.0
SCALLOP	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	210	211	212	213	214	215	216	217	218	219	220
MONTH/DAY/YEAR	8/19/90	8/19/90	8/20/90	8/20/90	8/20/90	8/21/90	8/21/90	8/21/90	8/21/90	8/22/90	8/22/90
LATITUDE START	57 59.9	57 44.7	57 40.9	57 35.6	57 49.1	57 59.8	58 4.9	58 15.8	58 10.1	58 16.1	58 30.7
LONGITUDE START	150 38.5	150 17.8	150 19.2	150 19.2	149 37.5	149 42.8	150 0.4	149 21.8	148 54.1	148 36.1	148 54.7
LATITUDE END	58 1.4	57 44.7	57 39.5	57 37.0	57 48.1	57 59.8	58 3.6	58 16.6	58 10.0	58 16.5	58 31.6
LONGITUDE END	150 37.4	150 17.5	150 20.3	150 20.7	149 39.0	149 42.8	150 1.0	149 23.8	148 53.0	148 33.4	148 55.6
LORAN START	32074.70	32115.30	32132.80	32154.90	32050.40	32011.10	32009.60	31921.40	31915.30	31872.60	31830.40
LORAN START	43076.50	43028.40	43020.40	43012.20	43033.40	43059.00	43078.50	43099.60	43076.60	43088.70	43136.80
LORAN END	32066.80	32114.70	32140.10	32151.50	32055.90	32011.10	32015.90	31920.00	31914.90	31868.20	31827.40
LORAN END	43080.70	43028.10	43018.10	43014.10	43032.00	43059.00	43074.50	43102.40	43076.20	43089.00	43140.60
GEAR DEPTH	73	69	71	86	197	68	161	76	96	150	60
DURATION IN HOURS	0.50	0.03	0.50	0.50	0.50	0.00	0.50	0.50	0.25	0.50	0.33
DISTANCE FISHED	1.63	0.00	1.54	1.51	1.32	0.00	1.37	1.13	0.42	1.59	1.21
PERFORMANCE / GEAR	0 /172	6 /172	0 /172	0 /172	1 /172	6 /172	0 /172	0 /172	0 /172	0 /172	1 /172
POLLOCK	2.5	0.0	1.6	0.0	0.0	0.0	111.1	1.6	58.7	42.0	0.9
PACIFIC COD	116.3	0.0	83.7	93.4	0.0	0.0	0.0	28.1	21.8	11.3	5.0
SABLEFISH	3.6	0.0	0.0	0.0	20.4	0.0	128.4	15.9	6.1	36.3	0.0
ARROWTOOTH FL.	194.1	0.0	343.4	1057.8	0.0	0.0	154.0	639.3	47.9	303.6	4.8
HALIBUT	40.5	0.0	277.5	90.2	0.0	0.0	0.0	150.1	45.6	0.0	11.9
FLATHEAD SOLE	7.7	0.0	0.7	4.8	0.0	0.0	1.4	51.7	0.0	0.0	0.0
DOVER SOLE	88.2	0.0	0.7	0.0	60.3	0.0	76.4	179.2	2.0	39.9	0.0
REX SOLE	90.0	0.0	0.0	21.3	2.5	0.0	53.5	146.7	2.5	0.0	0.0
ROCK SOLE	0.0	0.0	0.0	1.4	0.0	0.0	0.0	0.0	2.5	0.0	9.8
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0
PAC OC PERCH	0.0	2.9	0.0	0.0	0.0	0.0	1.0	1.6	6.4	12.2	10.7
ROUGHEYE RKFH	0.0	0.0	0.0	0.0	545.4	0.0	0.7	0.5	0.0	7.7	0.7
THORNYHEADS	0.0	0.0	0.0	0.0	66.0	0.0	13.6	0.0	0.0	42.4	0.0
NORTHERN RKFH	0.0	7.9	0.0	0.0	0.0	0.0	0.4	0.0	7.0	0.0	608.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	166.5	0.0	0.0	0.0	0.0	3.2	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	0.0	135.9
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.3	3.6	25.9
SHARPCHIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	1.6	4.1
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.9
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	0.0	19.8	0.0	0.0	0.1	0.0	1.6	0.0
SKATES	0.0	0.0	0.0	1.6	0.0	0.0	2.0	0.0	0.0	7.3	0.0
SHARKS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.0	0.0	0.0	4.1	0.0	0.0	0.0	0.0
SIDE STRIPE SHRIMP	0.0	0.0	0.0	0.0	0.1	0.0	0.9	0.0	0.0	0.8	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	221	222	223	224	225	226	227	228	229	230	231
MONTH/DAY/YEAR	8/22/90	8/23/90	8/23/90	8/23/90	8/23/90	8/24/90	8/24/90	8/24/90	8/25/90	8/25/90	8/25/90
LATITUDE START	58 41.2	58 42.5	58 39.9	58 41.8	58 46.6	58 44.0	58 37.6	58 29.4	58 39.9	58 45.3	58 51.1
LONGITUDE START	148 10.9	148 27.3	148 43.6	149 3.6	149 0.7	149 15.5	149 21.4	149 36.4	149 30.2	149 49.9	149 48.1
LATITUDE END	58 41.6	58 42.9	58 40.9	58 43.1	58 46.5	58 42.9	58 36.4	58 28.2	58 39.4	58 46.2	58 50.7
LONGITUDE END	148 9.4	148 24.7	148 45.5	149 5.1	149 0.5	149 17.4	149 22.1	149 34.3	149 32.6	149 51.8	149 45.5
LORAN START	31744.70	12712.00	12618.70	12548.90	12603.50	12517.00	12434.70	12297.00	12417.20	12385.20	12446.90
LORAN START	43153.10	31331.40	31339.90	31384.10	31410.50	31415.40	31383.30	31354.40	31411.10	31473.40	31507.30
LORAN END	31741.60	12726.90	12619.30	12554.10	12603.70	12500.00	12420.90	12296.10	12402.60	12386.00	12453.80
LORAN END	43153.90	31330.10	31350.20	31395.10	31409.60	31412.00	31377.00	31343.80	31411.40	31482.10	31501.10
GEAR DEPTH	184	147	111	90	125	86	67	82	72	106	134
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.05	0.50	0.50	0.50	0.50	0.50	0.50
DISTANCE FISHER	0.86	1.42	1.50	1.55	0.15	1.40	1.25	1.63	1.33	1.41	1.44
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	7 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	34.5	36.3	59.4	82.6	0.0	53.1	3.4	438.2	9.5	152.9	67.8
PACIFIC COD	0.0	0.0	2.5	26.3	0.0	39.1	35.8	48.3	76.7	2.7	0.0
SABLEFISH	0.0	15.6	51.0	71.9	0.0	551.7	2.9	9.1	4.1	2355.3	808.5
ARROWTOOTH FL.	0.0	6.8	110.0	204.8	0.0	2990.4	1060.5	435.2	3381.9	634.1	272.6
HALIBUT	0.0	0.0	27.0	15.7	0.0	188.6	219.9	79.5	58.5	5.2	0.0
FLATHEAD SOLE	0.0	0.0	0.0	46.9	0.0	30.7	34.5	97.1	121.2	120.2	13.2
DOVER SOLE	7.9	27.2	31.5	62.1	0.0	142.5	39.7	262.4	227.3	31.8	7.9
REX SOLE	0.7	7.7	29.7	86.4	0.0	268.2	42.6	225.0	214.9	32.7	4.9
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	1.8	4.3	197.5	510.5	0.0	632.8	0.0	0.0	0.0	73.5	0.0
ROUGHEYE RKFH	39.0	3.2	2.7	5.0	0.0	0.7	0.0	0.9	2.3	2.2	4.4
THORNYHEADS	5.9	11.3	85.7	10.4	0.0	0.0	0.0	0.0	0.0	0.0	9.0
NORTHERN RKFH	0.0	0.0	1.1	0.5	0.0	0.0	0.0	0.0	19.1	0.0	0.0
SHORTRAKER RF	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	2.0	1.8	0.0	180.9	0.0	0.0	7.5	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	1.8	0.0	21.4	0.0	0.0	15.4	0.0	0.0
SHARPCHIN	0.3	0.0	0.0	5.9	0.0	0.0	0.0	0.0	4.8	0.0	0.0
OTHER RF	0.0	0.0	3.5	0.8	0.0	2.7	0.0	0.0	0.0	1.5	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	1.6	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SKATES	0.0	1.1	0.0	0.0	0.0	0.0	0.0	4.1	0.0	2.3	14.1
SHARKS	0.0	0.0	13.2	6.8	0.0	0.0	3.4	6.1	6.1	5.4	7.5
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
KING CRAB	0.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.1	14.9	2.0	0.0	0.0	0.0	0.1	0.3	0.0	5.8
SIDE STRIPE SHRIMP	0.0	0.1	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.5
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	232	233	234	235	236	237	238	239	240	241	242
MONTH/DAY/YEAR	8/26/90	8/26/90	8/26/90	8/26/90	8/27/90	8/27/90	8/27/90	8/28/90	8/28/90	8/28/90	8/29/90
LATITUDE START	58 40.9	58 35.7	58 35.6	58 39.0	58 43.1	58 48.0	58 55.1	59 21.0	59 15.6	59 6.4	59 4.0
LONGITUDE START	150 18.8	150 19.7	150 49.3	151 6.9	151 42.2	151 57.0	151 14.8	150 31.2	150 16.2	149 53.2	149 29.2
LATITUDE END	58 41.9	58 37.1	58 35.6	58 38.2	58 42.1	58 47.5	58 54.9	59 22.0	59 15.9	59 6.4	59 3.2
LONGITUDE END	150 17.5	150 19.9	150 47.6	151 6.1	151 40.3	151 54.3	151 15.8	150 30.7	150 14.0	149 50.5	149 27.0
LORAN START	12225.10	12171.20	12053.00	12023.80	11952.40	11964.40	12166.00	12582.00	12580.40	12574.20	12646.90
LORAN START	31485.70	31455.60	31494.10	31536.90	31602.60	31646.40	31639.80	31745.50	31695.50	31610.20	31563.40
LORAN END	12240.00	12184.60	12060.00	12017.70	11946.70	11966.80	12159.40	12593.60	12590.60	12586.20	12648.10
LORAN END	31490.20	31464.70	31492.10	31530.60	31594.20	31641.10	31639.50	31750.60	31694.30	31607.20	31566.20
GEAR DEPTH	81	90	102	103	96	77	88	144	67	90	112
DURATION IN HOURS	0.40	0.50	0.33	0.33	0.47	0.50	0.20	0.35	0.47	0.50	0.50
DISTANCE FISHED	1.21	1.47	0.90	1.01	1.51	1.45	0.65	0.98	1.15	1.47	1.40
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	1 /172	0 /172	1 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	327.3	897.5	72.6	116.6	292.3	4.8	31.8	77.1	0.1	237.0	50.1
PACIFIC COD	6.8	30.8	9.8	110.7	32.2	19.7	14.1	3.6	26.5	44.7	14.5
SABLEFISH	49.7	1040.2	23.6	207.7	29.0	6.1	11.6	91.4	0.0	86.9	97.5
ARROWTOOTH FL.	1073.4	853.3	189.1	212.3	319.8	239.0	223.6	29.7	230.4	199.4	453.8
HALIBUT	146.6	46.1	0.0	17.8	0.0	14.2	12.9	5.9	87.9	29.3	0.0
FLATHEAD SOLE	78.0	58.3	66.5	0.0	0.0	0.0	6.4	2.0	38.1	0.4	3.4
DOVER SOLE	255.6	239.2	59.6	23.1	37.6	2.6	4.1	0.9	4.3	22.7	8.6
REX SOLE	97.1	53.3	16.8	7.7	11.1	3.9	5.7	0.0	3.9	20.9	6.8
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0	0.0	0.0
PAC OC PERCH	1.0	1.8	0.0	2.5	0.5	0.0	0.9	0.0	6.4	12.2	15.4
ROUGHEYE RKFH	0.5	25.9	1.4	6.8	1.4	0.0	0.0	85.0	0.0	1.3	15.9
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
NORTHERN RKFH	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	1.8	1.6	0.0	3.9	0.0	0.0	0.0	1.0	4.3	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	0.0
SHARPCHIN	0.5	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.4	0.2	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	2.5	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	8.6	5.7	0.0	0.0	0.0	0.2	0.0	8.1	0.0	0.0	3.1
SKATES	0.0	0.0	8.8	7.7	5.4	0.0	0.0	0.0	0.0	0.0	1.5
SHARKS	11.3	0.0	0.0	0.0	0.0	2.9	0.0	0.0	2.7	37.6	4.5
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	3.9	0.0	7.6	5.5	1.4	0.0	0.0	5.4	0.0	0.0	2.0
SIDE STRIPE SHRIMP	0.0	0.6	0.0	0.2	0.0	0.0	0.0	5.9	0.0	0.0	2.9
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	243	244	245	246	247	248	249	250	251	252	253
MONTH/DAY/YEAR	8/29/90	8/29/90	8/29/90	8/29/90	8/30/90	8/30/90	8/31/90	8/31/90	9/ 1/90	9/ 1/90	9/ 1/90
LATITUDE START	58 56.2	59 0.1	59 4.8	59 10.5	59 5.6	59 17.7	60 0.7	59 50.5	59 46.3	59 30.5	59 29.4
LONGITUDE START	149 0.1	148 50.8	148 44.9	148 51.1	148 6.1	148 19.5	149 21.6	149 5.4	149 25.6	149 29.4	149 18.3
LATITUDE END	58 57.1	59 0.3	59 6.2	59 11.5	59 6.3	59 18.8	59 59.9	59 51.5	59 45.6	59 29.5	59 28.3
LONGITUDE END	148 59.8	148 48.1	148 44.8	148 48.9	148 6.7	148 21.1	149 21.5	149 3.4	149 25.3	149 29.4	149 16.6
LORAN START	12693.20	12767.10	12834.90	12863.20	13004.40	13058.60	13232.60	13192.20	13074.70	12904.20	12935.60
LORAN START	31473.30	31485.20	31508.10	31555.50	31456.20	31560.10	31925.50	31841.80	31835.30	31736.20	31716.10
LORAN END	12703.00	12781.10	12849.40	12881.00	13007.10	13062.90	13225.40	13210.00	13068.40	12894.60	12931.30
LORAN END	31479.00	31483.00	31518.20	31559.30	31461.60	31570.50	31920.20	31846.30	31830.30	31730.10	31706.80
GEAR DEPTH	123	121	89	91	77	56	161	115	147	60	111
DURATION IN HOURS	0.33	0.50	0.50	0.50	0.25	0.50	0.25	0.50	0.25	0.33	0.50
DISTANCE FISHED	0.95	1.45	1.53	1.46	0.72	1.43	0.79	1.46	0.74	0.95	1.40
PERFORMANCE / GEAR	0 /172	1 /172	0 /172	0 /172	0 /172	7 /172	0 /172	0 /172	0 /172	0 /172	0 /172
POLLOCK	1.6	39.2	129.0	42.4	0.0	0.4	85.7	899.7	51.3	0.1	137.3
PACIFIC COD	0.0	2.9	12.5	5.4	0.0	2.0	5.4	0.0	0.0	207.3	63.0
SABLEFISH	18.1	161.5	170.8	3.4	0.0	0.0	9.1	22.7	1.3	0.5	534.8
ARROWTOOTH FL.	10.4	56.2	230.0	261.9	0.0	0.0	37.6	96.8	18.4	1277.5	358.0
HALIBUT	0.0	0.0	0.0	26.9	0.0	0.0	0.0	0.0	0.0	2.5	43.0
FLATHEAD SOLE	0.0	1.3	19.1	181.4	0.0	0.0	32.9	6.8	5.0	57.6	10.7
DOVER SOLE	0.9	37.2	128.1	79.8	0.0	0.0	0.5	1.7	1.6	8.8	30.4
REX SOLE	0.0	1.7	93.0	37.4	0.0	0.0	25.9	0.0	2.7	10.4	8.0
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
PAC OC PERCH	0.9	103.2	22.2	1.0	0.0	1.8	0.0	0.0	0.0	0.0	3.6
ROUGHEYE RKFH	0.0	6.1	0.7	12.7	0.0	0.0	33.8	380.3	4.5	0.0	40.4
THORNYHEADS	2.3	20.4	0.0	0.0	0.0	0.0	0.0	0.0	2.1	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.7	0.0	1.6	88.5	0.0	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.9	1.6	0.0	0.0	60.8	0.0	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.7	0.0	0.4	29.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OTHER RF	0.0	1.4	8.8	0.0	0.0	3.8	0.0	0.0	0.0	0.0	0.7
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	6.2	0.0	0.7	0.0	0.0	1.0	0.1	0.2	0.0	6.6
SKATES	2.1	0.0	0.0	0.0	0.0	0.0	8.8	7.0	10.4	5.7	0.0
SHARKS	0.0	139.5	0.0	15.9	0.0	0.0	0.0	4.1	0.0	35.4	42.4
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	5.4	2.9	0.1	0.5	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.2	1.6	1.6	1.6	0.0	0.0	3.5	18.6	5.2	0.0	28.1
SIDE STRIPE SHRIMP	0.1	1.1	0.0	0.0	0.0	0.0	3.1	3.5	7.3	0.0	4.3
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	254	255	256	257	258	259	260	261	262	263	264
MONTH/DAY/YEAR	9/ 1/90	9/ 2/90	9/ 2/90	9/ 2/90	9/ 3/90	9/ 3/90	9/ 3/90	9/ 4/90	9/ 4/90	9/ 5/90	9/ 5/90
LATITUDE START	59 27.5	59 35.4	59 38.4	59 45.9	59 32.2	59 23.5	59 19.5	60 3.0	59 50.9	59 59.2	60 11.8
LONGITUDE START	148 35.6	148 47.3	148 33.6	148 40.8	147 40.2	147 54.5	147 25.5	147 13.7	146 27.2	146 14.1	146 1.7
LATITUDE END	59 26.3	59 34.1	59 37.6	59 45.2	59 31.5	59 22.9	59 20.3	60 1.6	59 51.1	60 0.6	60 12.9
LONGITUDE END	148 34.2	148 48.4	148 31.7	148 39.5	147 39.4	147 57.1	147 26.8	147 13.2	146 26.3	146 13.5	146 2.8
LORAN START	13085.40	13114.30	13197.90	13241.40	13351.80	13213.40	13295.70	13745.40	13811.70	13939.30	14103.10
LORAN START	31650.00	31718.50	31723.10	31782.90	31607.00	31564.80	31492.00	31799.80	31638.40	31684.30	31767.80
LORAN END	13079.20	13097.60	13197.20	13239.70	13348.60	13198.20	13297.30	13733.70	13817.40	13954.30	14109.80
LORAN END	31639.60	31711.40	31714.80	31776.30	31600.70	31564.70	31499.70	31787.90	31638.90	31695.00	31779.20
GEAR DEPTH	54	62	107	98	55	89	69	101	39	33	58
DURATION IN HOURS	0.50	0.50	0.50	0.33	0.30	0.50	0.33	0.50	0.20	0.50	0.40
DISTANCE FISHED	1.44	1.43	1.29	1.01	0.82	1.40	1.02	1.50	0.51	1.44	1.31
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	1 /172	0 /172
POLLOCK	0.0	0.0	49.9	36.7	22.2	346.1	0.4	146.5	0.0	0.0	321.1
PACIFIC COD	0.0	16.1	0.0	0.0	2.7	3.4	25.9	11.3	34.9	0.5	15.9
SABLEFISH	11.8	0.8	13.6	54.0	0.0	35.4	3.6	48.1	0.0	0.0	5.9
ARROWTOOTH FL.	13.4	0.0	452.0	307.1	53.5	404.1	192.3	88.5	4.1	0.0	147.4
HALIBUT	16.5	0.0	0.0	0.0	0.0	42.4	22.8	9.5	6.8	62.1	17.4
FLATHEAD SOLE	0.2	0.0	44.2	41.3	0.0	9.8	1.1	28.8	0.0	0.0	28.6
DOVER SOLE	0.0	0.0	35.4	20.0	8.2	43.3	74.8	110.7	0.0	0.0	8.8
REX SOLE	14.5	0.7	5.4	8.4	3.9	13.6	20.2	71.9	0.0	0.0	30.8
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0	8.1	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.7	0.0	0.0	0.0	0.9	0.8	0.0	0.0	7.5
PAC OC PERCH	0.0	0.0	0.0	0.3	0.0	1.1	0.0	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	56.5	13.6	0.5	3.9	0.0	5.7	0.0	0.0	0.7
THORNYHEADS	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.5	0.0	0.0	0.0	8.6	5.2	0.0	0.2	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0	0.0	1.5	1.4	0.0	0.0	6.4	0.0
HARLEQUIN	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.0	0.0	20.4	0.0
SHARPCHIN	0.0	0.0	0.5	0.0	0.0	0.1	0.2	0.0	0.0	0.0	0.0
OTHER RF	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0	56.5	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.4	6.0	0.0	1.0	0.0	0.4	0.0	0.0	0.0
SKATES	0.0	6.1	20.2	12.5	0.0	0.0	2.9	9.1	0.0	0.0	15.9
SHARKS	315.5	0.0	9.8	0.0	3.9	13.6	2.9	5.2	0.0	0.0	0.0
TANNER CRAB	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	1.0	28.1	8.6	5.2	1.5	2.9	11.2	0.0	0.0	0.9
SIDE STRIPE SHRIMP	0.0	0.0	10.0	1.7	0.0	0.2	0.0	4.0	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	265	266	267	268	269	270	271	272	273	274	275
MONTH/DAY/YEAR	9/ 5/90	9/ 5/90	9/ 6/90	9/ 6/90	9/ 6/90	9/ 6/90	9/ 7/90	9/ 7/90	9/ 7/90	9/ 8/90	9/ 8/90
LATITUDE START	60 9.7	59 55.7	59 32.1	59 28.9	59 34.1	59 36.2	59 14.6	59 37.4	59 29.1	59 0.6	58 55.8
LONGITUDE START	145 31.6	145 4.1	144 57.9	145 6.3	145 41.2	145 58.3	146 35.0	146 35.8	146 59.0	149 46.8	150 15.9
LATITUDE END	60 8.7	59 57.1	59 32.2	59 28.8	59 35.1	59 36.2	59 15.3	59 38.0	59 29.8	59 1.5	58 55.7
LONGITUDE END	145 29.5	145 5.0	145 1.0	145 9.5	145 40.4	145 56.0	146 33.1	146 34.1	146 55.5	149 44.4	150 18.7
LORAN START	14195.50	14166.80	13979.80	13920.00	13836.60	13790.40	13456.50	13656.20	13489.60	12544.00	12382.40
LORAN START	31702.30	31533.80	31319.80	31311.20	31423.30	31472.50	31369.00	31547.10	31521.10	31565.90	31573.30
LORAN END	14193.70	14175.90	13969.20	13908.80	13849.40	13799.20	13470.50	13667.40	13508.90	12561.50	12370.40
LORAN END	31690.20	31547.00	31327.10	31316.50	31429.80	31467.90	31370.90	31548.40	31519.90	31568.10	31575.90
GEAR DEPTH	52	83	115	95	81	68	236	53	115	124	83
DURATION IN HOURS	0.50	0.50	0.50	0.50	0.50	0.40	0.50	0.33	0.50	0.50	0.50
DISTANCE FISHED	1.45	1.42	1.59	1.46	1.15	1.21	1.23	0.99	1.88	1.48	1.44
PERFORMANCE / GEAR	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	0 /172	5 /172	0 /172	0 /172
POLLOCK	29.7	40.1	21.8	3.2	19.5	5.7	0.9	34.5	0.0	29.0	536.1
PACIFIC COD	15.2	19.3	0.0	35.4	0.0	46.7	0.0	47.6	0.0	2.7	76.9
SABLEFISH	0.0	12.5	46.5	149.7	66.7	107.7	132.2	6.1	0.0	121.1	109.1
ARROWTOOTH FL.	39.9	236.5	94.3	105.0	433.2	1615.0	14.5	290.8	0.0	163.7	486.0
HALIBUT	13.5	9.6	5.9	11.1	0.0	133.2	0.0	49.8	0.0	0.0	50.8
FLATHEAD SOLE	49.7	42.9	1.8	0.0	76.4	62.7	0.0	246.3	0.0	16.3	0.2
DOVER SOLE	12.7	29.5	42.2	27.2	65.3	126.2	83.9	0.3	0.0	17.7	46.7
REX SOLE	44.2	52.4	0.1	7.5	2.6	5.3	6.9	0.4	0.0	12.9	44.5
ROCK SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
STARRY FLOUNDER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENGLISH SOLE	9.5	0.5	0.0	0.0	1.3	3.1	0.0	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	27.0	22.2	0.0	0.0	0.0	0.0	0.0	0.0	20.2
ROUGHEYE RKFH	0.0	1.4	27.4	0.0	7.5	1.0	12.2	0.0	0.0	19.3	7.3
THORNYHEADS	0.0	0.0	22.0	0.0	10.2	0.0	41.0	0.0	0.0	15.2	0.0
NORTHERN RKFH	0.0	0.0	0.0	21.8	0.7	0.0	0.0	0.0	0.0	0.0	0.0
SHORTTRAKER RF	0.0	0.0	0.0	0.0	0.0	0.0	6.1	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	2.7	351.3	1.9	1.7	0.0	1.1	0.0	0.0	1.4
HARLEQUIN	0.0	0.0	0.0	31.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SHARPCHIN	0.0	0.0	0.3	11.8	0.0	0.0	0.0	0.0	0.0	0.0	5.0
OTHER RF	0.0	0.9	0.3	869.5	0.0	0.0	0.0	0.0	0.0	0.0	0.9
ATKA MACKEREL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SCULPINS	0.0	0.0	0.0	7.3	0.0	0.0	0.0	0.0	0.0	0.0	3.9
SKATES	10.9	1.6	2.9	0.0	1.2	104.1	0.1	23.8	0.0	2.5	3.6
SHARKS	2.5	116.1	3.4	2.7	0.0	2.7	0.0	2.5	0.0	72.6	51.0
TANNER CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
KING CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PINK SHRIMP	0.1	0.0	2.8	0.0	0.1	0.0	0.0	0.0	0.0	3.9	0.1
SIDE STRIPE SHRIMP	0.0	0.0	2.2	0.0	0.2	0.0	0.0	0.0	0.0	6.5	0.0
SCALLOP	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

KILOGRAMS OF CATCH TAKEN BY THE F/V GREEN HOPE DURING THE 1990 GULF OF ALASKA BOTTOM TRAWL SURVEY

HAUL #	276	277	278	279
MONTH/DAY/YEAR	9/ 8/90	9/ 9/90	9/ 9/90	9/ 9/90
LATITUDE START	58 43.4	58 24.1	58 24.3	58 23.0
LONGITUDE START	150 40.2	150 28.4	150 28.9	151 31.8
LATITUDE END	58 42.4	58 24.3	58 24.4	58 23.4
LONGITUDE END	150 38.2	150 27.1	150 26.1	151 34.5
LORAN START	12165.40	12025.10	12025.60	11770.50
LORAN START	31528.30	31397.70	31399.90	31476.60
LORAN END	12163.70	12032.70	12037.50	11765.40
LORAN END	31520.00	31397.30	31396.00	31482.30
GEAR DEPTH	110	38	38	91
DURATION IN HOURS	0.50	0.25	0.50	0.50
DISTANCE FISHED	1.43	0.71	1.48	1.50
PERFORMANCE / GEAR	0 /172	5 /172	0 /172	0 /172
POLLOCK	361.2	0.0	0.1	72.3
PACIFIC COD	65.5	0.0	0.1	35.8
SABLEFISH	2458.4	0.0	0.0	7.7
ARROWTOOTH FL.	3286.3	0.0	0.1	362.6
HALIBUT	82.4	0.0	48.4	18.5
FLATHEAD SOLE	0.0	0.0	0.0	27.7
DOVER SOLE	47.8	0.0	0.0	77.8
REX SOLE	22.5	0.0	0.0	64.9
ROCK SOLE	0.0	0.0	24.7	0.7
STARRY FLOUNDER	0.0	0.0	0.0	0.0
YELLOWFIN SOLE	0.0	0.0	0.0	0.0
BUTTER SOLE	0.0	0.0	0.0	0.0
ALASKA PLAICE	0.0	0.0	0.0	0.0
ENGLISH SOLE	0.0	0.0	0.0	0.0
PAC OC PERCH	0.0	0.0	0.0	0.0
ROUGHEYE RKFH	0.0	0.0	0.0	0.0
THORNYHEADS	0.0	0.0	0.0	0.0
NORTHERN RKFH	0.0	0.0	0.0	0.0
SHORTRAKER RF	0.0	0.0	0.0	0.0
DUSKY RKFH	0.0	0.0	0.0	0.0
HARLEQUIN	0.0	0.0	0.0	0.4
SHARPCHIN	0.0	0.0	0.0	0.0
OTHER RF	2.7	0.0	0.0	0.0
ATKA MACKEREL	0.0	0.0	0.0	0.0
SCULPINS	10.4	0.0	0.0	0.0
SKATES	3.2	0.0	16.8	0.0
SHARKS	0.0	0.0	75.3	17.5
TANNER CRAB	0.0	0.0	0.0	0.1
KING CRAB	0.0	0.0	0.0	0.0
DUNGENESS CRAB	0.0	0.0	0.0	0.0
PINK SHRIMP	0.0	0.0	0.0	0.6
SIDE STRIPE SHRIMP	2.3	0.0	0.0	0.0
SCALLOP	0.0	0.0	0.0	0.0

SECTION 3 (continued)

Fishing log for the Green Hope

Summary listings of catch rates in descending order of magnitude for selected species of commercial interest

■ Catch rates (kg/nm) are standardized to a 15 m trawl width.

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
100	5942.6	3.2	134
155	3898.8	2.2	42
229	2542.8	0.7	72
276	2298.1	1.4	110
226	2136.0	1.5	86
208	1774.6	1.3	82
112	1682.6	0.5	59
115	1528.0	1.9	67
205	1476.9	1.1	83
252	1344.8	0.6	60
270	1334.7	1.1	68
81	911.8	0.5	71
182	905.9	0.8	42
93	901.7	0.6	73
232	887.1	1.5	81
227	848.4	0.8	67
213	700.5	0.9	86
113	686.0	0.8	73
154	672.8	1.4	105
121	656.0	0.9	62
111	611.9	0.6	65
64	585.1	0.5	62
233	580.5	1.2	90
217	565.8	1.1	76
80	532.5	0.6	68
191	529.1	1.4	112
118	523.9	0.4	73
148	520.0	0.9	72
65	503.2	0.7	64
173	492.6	0.8	80
167	473.4	1.4	66
152	467.3	1.3	113
7	457.0	0.4	69
172	450.0	0.7	86
230	449.7	0.9	106
73	445.9	0.7	83
20	422.4	0.6	65
207	420.9	1.2	69
269	376.7	1.0	81
109	370.4	1.8	58
126	367.0	0.8	121
169	365.0	0.8	69
91	356.1	0.4	64
134	353.6	1.5	109
256	350.4	0.8	107
107	347.6	0.5	71
238	344.0	0.9	88
275	337.5	0.9	83

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
242	324.2	1.3	112
68	322.1	1.4	93
188	321.5	1.3	119
142	305.8	0.9	72
141	304.4	1.2	82
257	304.0	0.9	98
272	293.7	0.9	53
56	292.1	1.1	90
259	288.7	1.0	89
119	286.1	1.2	64
27	285.9	0.6	53
101	273.6	2.4	109
228	267.0	1.1	82
253	255.7	1.2	111
82	252.8	0.4	78
49	251.5	0.4	44
209	250.0	1.4	99
21	248.9	0.6	55
279	241.8	1.2	91
189	241.4	1.1	92
74	239.9	0.9	90
135	238.5	1.2	106
26	238.0	0.5	65
138	237.8	1.1	106
165	230.3	1.2	74
171	225.7	1.6	79
212	223.0	0.9	71
52	218.0	0.8	67
87	212.6	0.5	85
236	211.8	1.0	96
235	210.2	1.0	103
234	210.2	1.0	102
75	204.7	0.9	85
127	201.8	1.0	80
139	201.2	0.9	96
240	200.4	0.7	67
86	196.7	0.6	80
197	194.8	1.1	88
219	190.9	1.2	150
231	189.3	1.6	134
72	188.9	0.7	92
260	188.6	0.5	69
92	185.5	0.4	69
45	179.5	0.8	81
246	179.4	0.7	91
125	176.4	0.9	117
84	170.6	0.5	102
203	169.6	1.3	113

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
117	169.4	0.7	71
164	167.6	1.1	68
137	167.4	0.6	63
266	166.6	1.4	83
122	165.4	1.2	107
237	164.9	0.8	77
132	164.8	2.4	103
146	159.4	0.7	51
29	158.0	0.7	58
97	156.7	0.6	64
245	150.3	0.6	89
140	149.3	1.0	73
55	147.0	0.3	55
204	145.5	1.6	127
130	138.2	1.2	95
181	136.1	1.5	77
174	135.7	0.6	74
241	135.6	1.0	90
63	133.9	0.9	75
106	133.3	1.2	81
224	132.1	0.5	90
153	131.1	1.4	125
108	129.3	0.7	91
39	126.3	0.5	61
85	126.3	0.6	98
76	125.7	0.6	88
123	124.8	1.0	138
210	119.1	1.0	73
57	117.7	0.5	76
218	113.9	0.9	96
264	112.5	1.0	58
216	112.4	1.7	161
128	112.4	0.3	58
175	111.5	0.9	85
129	111.3	1.1	100
274	110.6	1.1	124
89	108.9	0.3	69
37	105.0	0.7	60
110	104.2	0.7	87
83	100.4	0.0	108
22	100.0	0.4	49
46	91.3	0.5	49
198	87.8	1.1	90
199	87.7	0.9	71
136	85.5	1.0	109
156	85.1	0.8	36
36	84.9	0.3	56
103	84.1	0.4	57

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
184	82.9	2.3	93
180	82.0	0.6	70
120	78.7	0.5	56
90	77.8	0.5	69
223	73.3	0.7	111
268	71.9	1.0	95
160	68.9	2.3	138
163	66.5	0.4	66
250	66.3	1.4	115
54	66.2	0.5	43
168	66.1	0.9	53
258	65.3	0.8	55
159	62.7	1.2	85
202	60.6	1.0	124
267	59.3	1.2	115
261	59.0	1.4	101
34	57.2	0.5	44
28	55.1	0.6	59
99	51.5	0.8	110
38	49.9	0.3	48
95	49.4	2.2	111
25	48.3	0.5	46
249	47.7	2.7	161
77	45.7	0.0	100
143	43.1	0.6	55
102	40.9	0.5	79
183	40.1	1.5	137
19	40.0	0.4	58
166	39.2	0.3	41
244	38.8	1.2	121
124	36.2	1.6	152
30	34.8	1.0	48
200	32.9	0.4	47
104	30.7	0.4	77
239	30.3	2.0	144
10	29.1	0.5	127
265	27.5	0.7	52
133	27.0	1.3	152
3	26.6	0.7	159
251	24.8	1.8	147
70	24.7	0.7	64
40	24.6	0.9	26
192	22.1	0.6	75
150	19.9	0.7	33
201	18.5	0.4	48
18	18.4	0.4	41
94	16.9	1.7	202
147	16.1	0.4	58

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ARROWTOOTH FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
69	16.0	0.3	48
42	16.0	0.6	52
186	14.5	1.4	36
23	13.6	1.3	115
8	13.4	0.3	45
15	13.3	0.1	52
78	12.6	0.4	70
9	12.0	0.4	73
12	11.9	0.9	135
271	11.8	1.3	236
161	11.2	2.8	209
243	11.0	1.5	123
176	9.8	2.3	134
254	9.3	0.6	54
149	8.1	0.6	84
62	8.1	0.7	120
262	8.0	0.1	39
60	7.2	0.9	176
11	7.0	0.0	77
47	6.9	0.1	39
53	6.8	0.5	44
48	5.5	0.2	35
222	4.8	1.7	147
220	3.9	1.2	60
71	3.2	4.3	160
190	3.2	0.7	85
194	3.2	0.5	36
35	3.2	0.3	58
187	1.3	0.2	44
5	1.1	0.4	61
195	1.1	0.2	22
206	1.0	0.1	31
61	1.0	1.4	290
43	0.4	0.7	39
162	0.4	0.1	78
6	0.1	0.0	59
88	0.1	0.1	43
178	0.0	0.0	42
278	0.0	0.0	38

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
89	439.0	9.9	69
212	180.2	4.5	71
227	175.9	11.6	67
185	161.8	4.1	43
187	139.8	38.3	44
226	134.7	23.6	86
217	132.9	12.5	76
24	132.0	4.8	43
45	131.3	9.1	81
232	121.2	8.6	81
48	116.4	5.6	35
65	115.4	8.8	64
270	110.1	6.7	68
218	108.6	11.4	96
178	100.9	3.0	42
169	99.4	6.0	69
28	96.6	4.8	59
121	95.4	16.2	62
208	85.1	10.8	82
50	83.1	0.8	17
76	77.9	20.5	88
155	76.8	10.4	42
240	76.4	43.9	67
46	73.9	6.8	49
88	73.2	2.1	43
73	72.4	3.2	83
57	71.2	15.2	76
38	71.1	6.3	48
137	67.7	6.9	63
92	65.7	14.5	69
145	65.4	11.8	31
106	64.6	8.7	81
138	63.9	11.0	106
146	61.8	22.5	51
213	59.7	8.2	86
7	58.6	3.9	69
49	57.7	3.4	44
276	57.6	10.3	110
180	57.6	6.0	70
108	55.2	9.2	91
272	50.4	8.3	53
228	48.8	7.9	82
112	48.2	5.5	59
167	46.6	16.7	66
40	46.5	1.1	26
68	46.2	10.0	93
186	46.0	2.4	36
200	44.3	4.0	47

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
229	44.0	5.8	72
263	43.1	7.8	33
20	42.6	2.9	65
69	42.5	3.3	48
128	42.4	7.5	58
173	42.2	6.7	80
78	42.1	17.0	70
103	42.0	16.2	57
176	41.0	57.8	134
19	39.1	4.9	58
6	38.7	5.6	59
115	37.6	9.1	67
27	37.3	2.5	53
34	36.1	5.0	44
152	35.5	13.7	113
275	35.3	10.2	83
113	34.6	12.1	73
163	33.7	16.2	66
18	33.7	2.6	41
141	33.5	10.0	82
156	33.3	12.4	36
199	33.3	8.2	71
278	32.7	2.7	38
172	32.5	26.4	86
74	32.5	8.3	90
93	32.5	12.0	73
233	31.4	23.0	90
253	30.7	43.0	111
99	30.3	5.6	110
259	30.3	14.1	89
198	30.2	10.2	90
205	30.2	16.9	83
139	30.2	6.2	96
37	30.0	5.0	60
15	29.5	2.8	52
189	29.2	15.1	92
182	27.7	3.6	42
21	27.2	2.3	55
107	27.0	3.8	71
81	26.9	7.3	71
131	25.2	0.6	11
91	25.0	5.1	64
39	25.0	4.5	61
53	24.9	1.7	44
210	24.8	10.1	73
36	24.1	1.9	56
150	23.9	5.3	33
30	23.2	1.8	48

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC HALIBUT

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
174	23.1	15.1	74
70	22.5	5.9	64
29	22.4	4.3	58
260	22.3	7.6	69
181	22.3	28.8	77
86	22.2	10.4	80
9	22.0	2.9	73
104	21.8	15.5	77
35	21.7	1.2	58
194	20.7	1.6	36
54	20.3	4.1	43
241	19.9	7.3	90
238	19.8	6.4	88
4	19.8	12.2	42
5	19.5	3.1	61
110	19.2	10.1	87
97	18.7	6.1	64
175	18.6	24.7	85
246	18.4	4.5	91
143	18.2	9.6	55
223	18.0	9.0	111
235	17.6	8.9	103
165	17.5	9.0	74
159	16.5	3.5	85
154	16.4	12.6	105
153	15.7	12.2	125
140	15.6	12.3	73
72	15.5	11.6	92
33	14.6	2.2	40
25	14.1	1.7	46
148	14.1	11.0	72
80	13.9	4.1	68
26	13.6	2.1	65
126	13.5	13.3	121
262	13.3	1.4	39
264	13.3	5.8	58
130	12.7	10.9	95
279	12.3	6.2	91
64	12.1	5.3	62
10	12.0	10.7	127
102	11.5	7.0	79
254	11.4	3.3	54
101	11.3	7.3	109
119	11.0	6.9	64
201	10.8	4.8	48
129	10.5	14.8	100
55	10.2	2.8	55
224	10.1	15.7	90

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES FLATHEAD SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
167	951.2	0.4	66
48	271.4	0.3	35
110	260.7	0.4	87
272	248.8	0.5	53
208	212.1	0.4	82
46	207.4	0.3	49
181	207.1	0.3	77
52	173.2	0.2	67
164	160.9	0.3	68
209	151.4	0.4	99
168	144.9	0.4	53
109	144.1	0.5	58
138	133.4	0.4	106
49	129.3	0.3	44
246	124.3	0.3	91
150	114.1	0.2	33
122	112.1	0.9	107
205	111.0	0.3	83
165	98.6	0.3	74
149	97.0	0.4	84
141	92.8	0.3	82
156	92.2	0.5	36
169	92.2	0.3	69
229	91.2	0.3	72
230	85.2	0.3	106
234	73.8	0.3	102
56	72.7	0.3	90
135	69.5	0.3	106
127	68.0	0.3	80
269	66.5	0.6	81
137	65.8	0.3	63
232	64.5	0.3	81
47	62.6	0.3	39
155	62.4	0.4	42
252	60.6	0.5	60
228	59.6	0.3	82
172	52.9	0.2	86
142	51.8	0.3	72
270	51.8	0.3	68
189	50.5	0.3	92
72	48.4	0.2	92
171	47.8	0.3	79
45	46.2	0.2	81
217	45.8	0.4	76
107	45.7	0.3	71
182	45.4	0.6	42
249	41.6	0.4	161
108	41.6	0.4	91

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES FLATHEAD SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
200	41.0	0.3	47
257	40.9	0.2	98
233	39.7	0.3	90
132	39.5	0.5	103
38	38.8	0.5	48
152	38.3	0.4	113
37	35.6	0.3	60
198	34.9	0.4	90
256	34.3	0.3	107
265	34.3	0.2	52
115	34.1	0.3	67
240	33.1	0.5	67
64	32.0	0.4	62
85	31.6	0.3	98
55	31.0	0.3	55
224	30.3	0.2	90
266	30.2	0.2	83
83	30.0	0.3	108
100	29.6	0.5	134
139	29.3	0.4	96
84	29.0	0.2	102
140	27.8	0.3	73
227	27.6	0.4	67
87	26.9	0.3	85
154	26.7	0.3	105
199	25.9	0.3	71
118	25.8	0.2	73
173	25.4	0.2	80
106	24.8	0.3	81
203	24.6	0.4	113
57	24.5	0.2	76
42	23.8	0.5	52
226	21.9	0.3	86
202	21.8	0.4	124
264	21.8	0.2	58
117	20.8	0.2	71
153	20.1	0.4	125
184	19.7	0.5	93
197	19.5	0.4	88
261	19.2	0.5	101
73	19.2	0.5	83
174	18.5	0.3	74
279	18.4	0.5	91
104	17.2	0.3	77
207	17.0	0.4	69
90	16.5	0.3	69
86	16.4	0.2	80
65	16.3	0.3	64

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES FLATHEAD SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
191	16.3	0.9	112
113	15.4	0.3	73
201	13.8	0.3	48
126	13.2	0.3	121
7	12.9	0.4	69
119	12.9	0.3	64
188	12.7	0.4	119
39	12.6	0.3	61
245	12.5	0.3	89
148	11.6	0.4	72
143	11.1	0.3	55
274	11.0	0.2	124
81	10.5	0.3	71
111	10.1	0.3	65
129	10.0	0.4	100
121	9.9	0.4	62
238	9.8	0.8	88
20	9.7	0.3	65
99	9.5	0.4	110
231	9.1	0.3	134
125	8.3	0.3	117
130	8.2	0.4	95
28	8.1	0.3	59
82	7.9	0.2	78
253	7.6	0.3	111
92	7.2	0.2	69
204	7.1	0.4	127
128	7.1	0.3	58
259	7.0	0.2	89
34	6.9	0.5	44
251	6.7	0.3	147
134	6.4	0.3	109
175	5.6	0.3	85
91	4.8	0.3	64
210	4.7	0.5	73
250	4.7	0.3	115
29	4.7	0.8	58
54	3.6	0.3	43
36	3.5	0.5	56
133	3.2	0.5	152
26	3.2	0.5	65
3	3.2	0.7	159
213	3.2	0.6	86
183	2.8	0.2	137
10	2.5	0.6	127
123	2.5	0.4	138
146	2.5	0.3	51
242	2.4	0.2	112

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES DOVER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
100	276.4	0.8	134
208	250.6	0.7	82
155	241.1	1.5	42
232	211.2	0.9	81
229	170.9	0.7	72
233	162.7	1.0	90
228	161.0	0.8	82
217	158.6	0.8	76
270	104.3	0.8	68
226	101.8	0.6	86
142	98.6	1.1	72
177	97.7	0.5	247
184	84.9	2.0	93
245	83.8	0.8	89
209	80.9	0.9	99
261	73.8	0.9	101
260	73.4	0.7	69
141	71.3	1.1	82
271	68.2	0.6	236
234	66.3	1.1	102
269	56.8	0.8	81
216	55.8	0.7	161
246	54.7	0.9	91
210	54.1	0.8	73
279	51.9	0.7	91
214	45.7	0.8	197
224	40.1	0.9	90
169	39.3	1.3	69
174	35.6	1.3	74
276	33.4	1.1	110
275	32.4	1.0	83
227	31.8	0.7	67
181	31.6	1.1	77
97	31.6	0.9	64
119	31.3	0.8	64
259	30.9	0.8	89
207	29.3	0.8	69
256	27.4	0.8	107
267	26.5	0.8	115
191	26.3	0.9	112
244	25.7	0.9	121
219	25.1	0.5	150
236	24.9	0.8	96
66	24.6	0.6	283
140	24.4	1.0	73
122	23.6	0.8	107
235	22.9	0.9	103
230	22.5	1.1	106

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES DOVER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
76	22.4	0.8	88
99	21.9	0.7	110
253	21.7	0.7	111
121	21.6	0.7	62
223	21.0	1.0	111
266	20.8	0.7	83
60	20.6	0.9	176
81	19.9	0.9	71
257	19.8	0.7	98
125	19.5	1.4	117
94	19.3	0.7	202
222	19.2	0.9	147
183	19.1	0.5	137
268	18.6	0.7	95
148	17.0	1.2	72
93	16.2	0.9	73
241	15.4	0.9	90
75	14.7	1.1	85
95	14.1	0.9	111
197	13.2	1.1	88
130	12.8	0.9	95
274	12.0	0.8	124
198	10.4	0.8	90
156	10.0	1.2	36
258	10.0	0.8	55
136	9.5	0.9	109
161	9.4	1.2	209
252	9.3	0.6	60
221	9.2	0.8	184
175	9.2	0.9	85
265	8.8	0.4	52
199	8.4	0.9	71
80	8.3	0.7	68
67	8.2	0.7	202
160	7.9	0.8	138
68	7.0	1.1	93
264	6.8	0.9	58
205	6.7	1.3	83
171	6.7	0.8	79
159	6.5	1.4	85
164	6.5	0.9	68
238	6.3	1.0	88
242	6.2	0.6	112
73	6.1	0.5	83
63	6.0	0.9	75
231	5.5	0.9	134
129	5.5	1.5	100
134	5.4	0.9	109

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES DOVER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
101	5.3	0.9	109
153	4.9	1.5	125
218	4.9	0.7	96
176	4.8	0.6	134
123	4.6	2.0	138
126	4.4	1.2	121
77	4.3	0.9	100
139	4.2	1.3	96
61	4.0	0.7	290
56	3.9	0.7	90
127	3.9	1.1	80
108	3.8	0.7	91
240	3.7	0.7	67
124	3.6	2.0	152
154	3.6	1.8	105
110	3.4	0.5	87
120	3.3	0.8	56
86	3.0	0.5	80
7	2.9	0.8	69
152	2.8	1.6	113
132	2.8	0.9	103
3	2.6	1.0	159
107	2.6	0.5	71
83	2.6	0.8	108
82	2.3	0.0	78
251	2.1	0.8	147
237	1.8	0.7	77
178	1.7	0.5	42
143	1.6	0.8	55
45	1.4	0.8	81
62	1.4	0.5	120
57	1.2	0.9	76
250	1.2	0.3	115
74	1.1	1.1	90
243	1.0	0.5	123
146	0.9	1.4	51
239	0.9	0.9	144
106	0.8	0.5	81
137	0.8	0.4	63
111	0.7	0.7	65
249	0.6	0.5	161
200	0.6	0.3	47
102	0.6	0.7	79
85	0.5	0.9	98
71	0.5	0.7	160
212	0.4	0.7	71
272	0.3	0.3	53
104	0.3	0.5	77

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES REX SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
208	338.3	0.6	82
100	263.2	0.5	134
209	227.1	0.5	99
226	191.5	0.3	86
229	161.6	0.3	72
181	150.5	0.7	77
174	139.6	0.4	74
228	138.0	0.5	82
169	130.3	0.6	69
217	129.9	0.4	76
81	100.1	0.4	71
148	87.5	0.4	72
232	80.3	0.5	81
3	80.0	0.4	159
119	77.6	0.5	64
155	76.1	0.6	42
80	65.6	0.5	68
26	61.9	0.7	65
245	60.8	0.3	89
99	59.4	0.4	110
76	59.1	0.5	88
63	56.8	0.6	75
175	55.9	0.4	85
75	55.8	0.6	85
224	55.7	0.3	90
122	55.3	0.6	107
210	55.2	0.4	73
121	54.9	0.5	62
261	47.9	0.4	101
159	47.2	0.5	85
207	43.4	0.5	69
279	43.2	0.5	91
142	39.6	0.7	72
216	39.1	0.5	161
141	37.1	1.0	82
266	36.9	0.2	83
233	36.2	0.6	90
227	34.1	0.3	67
101	33.5	0.5	109
249	32.7	0.2	161
275	30.9	0.4	83
265	30.5	0.2	52
77	29.8	0.5	100
23	29.8	0.4	115
156	27.4	0.6	36
28	27.2	0.4	59
246	25.6	0.3	91
82	24.2	0.5	78

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES REX SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
95	23.8	0.4	111
136	23.8	0.5	109
264	23.5	0.3	58
230	23.2	0.4	106
97	23.1	0.6	64
68	21.9	0.6	93
10	21.7	0.5	127
93	21.5	0.4	73
223	19.8	0.3	111
260	19.8	0.2	69
115	18.9	0.8	67
234	18.6	0.7	102
73	17.2	0.6	83
140	16.4	0.7	73
276	15.7	0.5	110
241	14.2	0.4	90
213	14.1	0.4	86
177	14.0	0.6	247
184	13.8	0.9	93
183	13.7	0.3	137
7	13.2	0.3	69
74	12.9	0.7	90
146	11.8	0.4	51
168	11.1	0.6	53
252	11.0	0.3	60
94	10.8	0.3	202
254	10.1	0.3	54
57	10.0	0.5	76
259	9.7	0.3	89
137	8.8	0.2	63
274	8.7	0.2	124
238	8.7	0.6	88
160	8.6	0.3	138
257	8.3	0.1	98
125	7.8	0.6	117
191	7.8	0.6	112
235	7.6	0.6	103
236	7.4	0.6	96
134	6.9	0.6	109
130	6.3	0.5	95
218	5.9	0.3	96
253	5.7	0.2	111
204	5.7	0.5	127
271	5.6	0.2	236
222	5.4	0.3	147
86	5.3	0.4	80
126	5.2	0.6	121
111	5.1	0.5	65

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES REX SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
268	5.1	0.2	95
242	4.9	0.3	112
91	4.8	0.3	64
164	4.8	0.3	68
258	4.7	0.2	55
199	4.6	0.3	71
270	4.4	0.2	68
188	4.2	0.5	119
256	4.2	0.2	107
60	4.0	0.4	176
165	3.8	0.7	74
138	3.7	0.5	106
251	3.7	0.2	147
64	3.6	0.3	62
120	3.6	0.5	56
198	3.5	0.4	90
231	3.4	0.3	134
240	3.4	0.3	67
20	3.3	0.4	65
39	3.1	0.6	61
180	3.1	0.4	70
123	2.9	0.5	138
143	2.9	0.3	55
42	2.8	0.5	52
237	2.7	0.6	77
72	2.6	0.1	92
56	2.6	0.6	90
173	2.5	0.7	80
107	2.4	0.4	71
269	2.3	0.2	81
128	2.2	0.2	58
55	2.2	0.2	55
176	1.9	0.4	134
171	1.9	0.5	79
214	1.9	0.3	197
200	1.7	0.4	47
21	1.7	0.7	55
52	1.6	0.2	67
83	1.6	0.2	108
89	1.6	0.3	69
37	1.2	0.6	60
152	1.2	0.4	113
153	1.2	0.4	125
244	1.2	0.3	121
92	1.2	0.6	69
45	1.1	0.4	81
172	1.1	0.9	86
201	1.1	0.3	48

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES YELLOWFIN SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
48	766.0	0.4	35
47	349.7	0.4	39
195	62.3	0.3	22
49	50.6	0.4	44
52	26.5	0.7	67
137	11.9	0.6	63
46	8.6	0.6	49
150	6.5	0.7	33
40	3.6	0.6	26
201	1.8	0.6	48
156	0.9	1.3	36
200	0.4	0.6	47
168	0.4	0.5	53
131	0.2	0.1	11
50	0.1	0.2	17

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES STARRY FLOUNDER

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
193	43.9	2.2	38
48	31.6	2.2	35
40	17.1	2.0	26
50	5.3	1.7	17
178	5.0	2.4	42
157	4.6	4.1	28
195	3.1	2.4	22

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ALASKA PLAICE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
48	53.7	1.4	35
200	29.8	1.2	47
47	15.6	0.9	39
201	6.4	1.4	48
46	5.6	1.2	49
49	4.0	1.2	44
156	1.5	2.2	36
152	1.0	1.2	113

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ENGLISH SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
265	6.6	0.5	52
264	5.7	0.7	58
42	3.1	0.8	52
270	2.5	0.8	68
238	1.7	1.1	88
269	1.1	1.3	81
260	0.9	0.9	69
253	0.8	1.1	111
143	0.7	1.1	55
7	0.6	0.9	69
256	0.6	0.7	107
261	0.5	0.8	101
219	0.4	0.7	150
266	0.3	0.5	83

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES BUTTER SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
178	96.6	0.3	42
48	18.6	1.0	35
195	14.2	0.2	22
194	12.2	0.2	36
40	4.5	0.4	26
167	1.5	0.7	66
165	1.5	0.4	74
193	1.4	0.2	38
168	1.3	0.4	53
47	0.8	0.6	39
164	0.4	0.2	68
150	0.4	0.5	33
156	0.4	0.6	36

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
185	241.6	0.5	43
206	161.6	0.5	31
182	146.5	0.4	42
50	142.2	0.5	17
18	138.4	0.5	41
34	125.2	0.6	44
27	113.6	0.8	53
178	102.7	0.6	42
8	100.9	0.6	45
25	96.6	0.7	46
36	90.7	0.3	56
38	89.3	0.4	48
22	81.1	0.8	49
20	80.7	0.6	65
29	78.7	0.6	58
21	77.8	0.8	55
46	77.1	0.5	49
6	70.0	0.5	59
40	69.1	0.3	26
15	66.3	0.4	52
166	66.0	0.4	41
53	63.8	0.5	44
131	62.7	0.4	11
42	61.3	0.6	52
30	55.3	0.5	48
19	50.4	0.8	58
180	47.7	0.7	70
262	39.1	0.7	39
26	36.5	0.7	65
5	33.0	0.5	61
51	32.7	0.5	34
47	32.2	0.4	39
187	29.8	0.4	44
9	29.5	0.3	73
43	26.6	0.3	39
168	26.1	0.6	53
137	25.7	0.7	63
186	24.4	0.6	36
54	22.1	0.5	43
35	20.8	0.5	58
7	19.8	0.7	69
28	19.7	0.5	59
33	19.1	0.4	40
112	18.9	0.9	59
48	18.6	1.1	35
278	16.7	0.2	38
88	16.6	0.5	43
145	15.1	0.6	31

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
120	14.1	0.7	56
69	13.6	0.4	48
155	13.3	1.4	42
4	13.2	0.4	42
164	13.0	0.6	68
194	11.8	0.5	36
193	11.6	0.5	38
109	11.4	1.2	58
103	11.3	0.6	57
163	11.3	0.6	66
195	9.1	0.2	22
39	8.5	0.6	61
49	8.3	0.3	44
220	8.1	0.5	60
55	7.9	0.5	55
157	7.6	0.7	28
146	7.1	0.5	51
73	6.1	0.6	83
218	5.9	0.6	96
263	5.6	0.4	33
128	4.9	0.9	58
165	4.4	0.8	74
207	4.3	0.6	69
162	3.8	0.7	78
201	3.7	0.7	48
152	3.5	0.4	113
24	3.2	0.5	43
89	2.5	0.7	69
64	2.3	0.7	62
143	1.9	0.6	55
179	1.9	0.3	42
111	1.9	0.6	65
138	1.5	0.8	106
227	1.5	0.6	67
91	1.4	0.7	64
200	1.2	0.6	47
121	1.2	0.5	62
3	1.2	0.9	159
213	0.9	0.7	86
147	0.9	0.7	58
90	0.7	1.1	69
37	0.6	0.3	60
136	0.6	0.8	109
167	0.5	0.1	66
279	0.5	0.7	91
104	0.5	0.7	77
11	0.5	0.7	77
156	0.4	0.6	36

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ROCK SOLE

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
45	0.4	0.7	81
192	0.4	0.6	75
198	0.3	0.5	90
108	0.3	0.4	91
10	0.3	0.1	127
70	0.1	0.1	64
57	0.1	0.1	76

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SABLEFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
276	1719.2	3.8	110
230	1670.4	2.8	106
100	776.6	4.1	134
233	707.6	3.3	90
231	561.5	3.1	134
226	394.1	3.6	86
253	382.0	3.6	111
235	205.7	3.1	103
86	130.5	1.8	80
245	111.6	2.2	89
244	111.4	3.0	121
271	107.5	3.0	236
268	102.5	3.3	95
95	97.6	2.8	111
216	93.7	4.3	161
239	93.3	3.2	144
159	90.7	1.6	85
270	89.0	1.2	68
142	87.0	2.9	72
274	81.8	3.3	124
275	75.8	2.7	83
94	73.8	3.1	202
242	69.7	3.0	112
241	59.1	3.0	90
269	58.0	1.3	81
257	53.4	1.4	98
205	52.6	2.9	83
209	50.7	3.7	99
224	46.4	3.1	90
232	41.0	2.9	81
207	39.0	2.9	69
223	34.0	3.2	111
208	32.6	3.6	82
261	32.1	1.4	101
166	30.4	0.9	41
267	29.2	2.2	115
134	28.1	4.0	109
234	26.2	3.4	102
160	26.1	2.5	138
259	25.3	2.7	89
68	24.2	2.0	93
60	23.5	2.8	176
219	22.8	3.0	150
71	19.8	2.9	160
236	19.2	1.7	96
67	19.1	2.7	202
243	19.1	2.6	123
125	18.3	2.4	117

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SABLEFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
83	18.3	2.2	108
238	17.8	2.9	88
74	16.5	3.4	90
139	15.7	3.3	96
250	15.5	2.8	115
214	15.5	4.1	197
218	14.6	3.1	96
217	14.0	2.6	76
204	12.8	1.7	127
249	11.5	1.8	161
66	11.1	3.3	283
222	11.0	3.9	147
126	10.9	2.4	121
256	10.5	1.7	107
84	9.5	1.8	102
92	9.4	0.9	69
266	8.8	1.0	83
172	8.4	3.4	86
254	8.2	1.1	54
119	8.1	1.0	64
173	7.8	1.5	80
140	7.5	2.9	73
124	7.2	2.9	152
154	6.8	2.6	105
202	6.4	3.5	124
23	6.4	1.0	115
136	6.3	1.6	109
272	6.2	1.0	53
99	6.2	2.3	110
183	6.1	3.0	137
153	6.1	4.8	125
228	5.6	3.0	82
123	5.4	3.4	138
279	5.1	2.6	91
108	5.1	2.3	91
191	4.8	3.8	112
85	4.8	2.0	98
200	4.7	1.0	47
264	4.5	0.7	58
133	4.3	3.6	152
237	4.2	2.0	77
152	4.1	4.8	113
62	3.9	3.9	120
77	3.7	1.8	100
260	3.6	1.8	69
229	3.1	2.0	72
3	2.6	1.4	159
181	2.5	3.2	77

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SABLEFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
227	2.4	2.9	67
246	2.3	1.7	91
121	2.3	1.0	62
210	2.2	3.6	73
101	2.1	1.4	109
138	2.0	2.1	106
251	1.7	1.3	147
113	1.6	1.4	73
175	1.4	0.9	85
188	1.3	1.1	119
199	1.3	1.1	71
135	1.0	1.4	106
174	0.9	1.1	74
197	0.8	1.2	88
82	0.6	1.1	78
255	0.6	0.8	62
90	0.6	0.9	69
252	0.5	0.5	60
198	0.5	0.8	90
65	0.4	0.7	64
201	0.4	0.7	48
43	0.1	0.1	39

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
121	559.1	1.8	62
38	552.2	3.2	48
93	335.7	1.9	73
36	332.2	1.3	56
107	322.0	1.5	71
74	294.2	2.5	90
25	287.6	9.2	46
155	282.6	3.4	42
30	271.9	2.4	48
108	254.4	2.1	91
9	251.4	2.3	73
134	242.1	2.4	109
22	222.6	2.7	49
252	218.2	2.6	60
68	180.1	2.0	93
48	169.5	3.1	35
89	165.6	3.1	69
75	165.0	2.1	85
152	159.9	3.3	113
63	146.4	2.4	75
46	146.3	3.4	49
100	144.8	3.3	134
199	140.8	2.3	71
39	139.5	3.2	61
148	135.5	2.1	72
47	134.5	1.7	39
174	132.4	3.0	74
141	123.1	2.6	82
159	118.1	1.9	85
235	109.6	2.6	103
73	106.1	2.4	83
182	103.8	2.8	42
115	98.4	1.5	67
97	98.2	1.8	64
137	92.6	2.3	63
160	92.2	2.5	138
191	91.7	0.0	112
186	88.6	1.3	36
28	88.2	3.3	59
205	82.1	2.9	83
49	81.5	4.0	44
181	79.1	2.6	77
81	77.4	1.8	71
76	76.9	2.3	88
198	76.8	2.2	90
19	74.8	3.0	58
34	74.6	3.8	44
168	74.6	2.3	53

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
29	74.0	4.3	58
106	71.8	2.2	81
210	71.4	1.6	73
262	68.5	1.1	39
128	64.4	1.6	58
140	63.4	2.1	73
213	61.9	1.9	86
26	59.2	3.6	65
95	58.9	2.2	111
110	58.6	2.8	87
113	58.3	2.7	73
229	57.6	2.5	72
171	57.4	2.8	79
138	57.2	3.1	106
70	56.0	1.9	64
7	56.0	2.1	69
111	54.7	1.5	65
212	54.3	1.6	71
109	53.7	2.7	58
275	53.4	3.0	83
218	51.8	2.7	96
119	50.1	2.1	64
33	49.0	1.5	40
272	48.1	4.3	53
164	47.1	3.5	68
21	46.2	3.3	55
136	45.9	2.8	109
276	45.8	3.3	110
253	45.0	4.5	111
27	44.7	3.3	53
123	43.2	3.2	138
10	39.2	1.7	127
149	39.1	3.4	84
270	38.6	4.7	68
80	38.3	2.0	68
20	38.1	4.1	65
207	36.7	1.7	69
11	36.2	4.3	77
167	36.1	2.7	66
142	35.5	2.3	72
6	34.9	5.6	59
197	34.8	2.8	88
169	34.4	2.1	69
99	34.2	2.0	110
154	31.2	2.7	105
241	30.4	2.2	90
178	29.7	1.2	42
228	29.6	2.4	82

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC COD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
65	29.0	2.1	64
227	28.7	1.9	67
45	28.6	3.8	81
122	28.2	2.4	107
226	27.9	2.2	86
260	25.3	2.4	69
101	25.2	2.5	109
217	24.9	3.1	76
268	24.2	2.5	95
82	24.2	2.1	78
279	23.9	2.8	91
202	23.2	3.2	124
240	23.1	1.6	67
104	23.0	2.5	77
132	22.4	2.2	103
57	21.9	2.2	76
238	21.6	2.8	88
55	21.6	1.9	55
64	21.5	1.5	62
165	21.4	4.1	74
236	21.3	2.0	96
233	21.0	3.4	90
77	20.7	2.2	100
188	19.8	2.8	119
180	19.4	2.8	70
208	19.3	2.4	82
37	19.2	4.1	60
52	18.9	3.4	67
203	18.4	2.8	113
86	18.2	2.4	80
127	17.2	2.5	80
224	17.0	2.2	90
42	16.3	1.6	52
43	15.7	2.0	39
117	14.9	2.9	71
173	14.6	3.6	80
91	14.3	5.1	64
133	14.0	3.9	152
201	13.9	2.2	48
237	13.6	2.0	77
266	13.6	3.9	83
209	13.5	3.2	99
156	12.5	2.3	36
264	12.1	2.0	58
23	11.8	3.1	115
255	11.3	2.0	62
146	10.9	1.0	51
234	10.8	3.3	102

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES WALLEYE POLLOCK

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
171	2235.2	1.0	79
139	1861.2	1.0	96
169	1846.2	1.1	69
205	1572.0	1.0	83
141	1334.3	1.2	82
209	975.4	1.5	99
142	898.1	1.1	72
174	883.3	1.2	74
36	837.8	0.9	56
109	817.5	0.9	58
184	722.6	1.1	93
250	616.2	0.5	115
233	610.6	0.9	90
155	594.4	1.3	42
52	582.7	0.9	67
208	527.5	1.2	82
165	521.5	1.2	74
181	478.1	0.9	77
164	435.0	1.3	68
176	421.4	0.9	134
137	416.7	1.0	63
138	377.0	0.9	106
275	372.3	0.9	83
110	342.5	1.1	87
150	331.3	0.8	33
90	313.6	0.8	69
140	274.5	1.2	73
232	270.5	1.1	81
228	268.8	1.3	82
168	259.1	1.0	53
276	252.6	0.4	110
149	251.8	1.0	84
259	247.2	0.8	89
264	245.1	0.7	58
48	244.8	1.7	35
199	210.0	1.0	71
200	205.0	0.8	47
236	193.6	1.1	96
122	183.7	1.0	107
45	176.9	1.2	81
172	174.9	1.1	86
241	161.2	0.9	90
123	151.8	0.6	138
204	149.2	0.4	127
105	144.2	0.8	43
128	144.1	0.7	58
23	140.4	1.0	115
152	140.4	0.6	113

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES WALLEYE POLLOCK

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
218	139.9	0.6	96
198	139.2	0.7	90
135	134.8	0.7	106
136	129.1	0.8	109
89	128.6	0.7	69
203	128.0	0.9	113
188	122.0	0.4	119
175	120.0	1.2	85
235	115.4	1.1	103
167	114.2	1.4	66
173	108.6	0.9	80
249	108.5	0.8	161
230	108.4	0.9	106
191	100.2	0.6	112
253	98.1	0.9	111
261	97.7	0.9	101
245	84.3	0.9	89
134	84.0	1.3	109
216	81.1	1.0	161
234	80.6	0.6	102
239	78.7	0.8	144
183	78.0	1.0	137
182	76.8	0.9	42
108	73.0	0.9	91
10	71.9	1.1	127
251	69.3	0.7	147
202	67.2	0.6	124
153	64.8	0.3	125
189	57.3	0.5	92
224	53.3	1.1	90
160	50.9	1.4	138
238	48.8	1.1	88
279	48.2	1.1	91
27	47.6	1.1	53
231	47.1	0.6	134
129	45.9	0.6	100
132	45.6	0.4	103
127	43.2	1.3	80
221	40.1	0.8	184
223	39.6	0.8	111
256	38.7	0.3	107
28	38.2	1.0	59
226	37.9	1.1	86
257	36.4	0.3	98
242	35.8	0.7	112
201	35.3	0.3	48
272	34.8	0.1	53
154	34.7	0.6	105

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES WALLEYE POLLOCK

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
192	31.4	1.1	75
124	30.5	0.7	152
74	30.2	1.9	90
246	29.0	0.9	91
266	28.3	0.7	83
12	27.5	1.0	135
258	27.1	0.4	55
244	27.1	0.6	121
133	27.1	0.6	152
219	26.4	0.8	150
222	25.6	0.9	147
130	24.0	0.7	95
47	21.3	0.6	39
46	21.0	0.4	49
265	20.5	0.3	52
274	19.6	0.3	124
269	17.0	0.7	81
64	16.6	1.5	62
26	16.2	1.2	65
56	15.1	1.5	90
267	13.7	0.8	115
83	13.4	1.3	108
11	12.7	0.9	77
37	12.5	0.9	60
125	12.3	0.7	117
207	10.7	1.2	69
39	9.8	0.7	61
197	9.1	1.1	88
34	8.5	0.9	44
99	7.4	0.9	110
57	7.3	1.4	76
229	7.2	1.1	72
9	6.8	0.4	73
143	6.4	0.9	55
63	6.2	1.2	75
106	5.9	1.2	81
35	5.9	0.1	58
118	5.2	0.8	73
95	5.2	1.2	111
49	4.9	0.7	44
40	4.8	1.2	26
270	4.7	1.1	68
71	4.4	0.8	160
68	3.7	1.4	93
195	3.6	0.1	22
94	3.6	0.8	202
237	3.3	0.8	77
3	3.2	1.2	159

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ATKA MACKEREL

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
4	31.5	1.0	42
26	0.9	1.4	65
128	0.8	1.4	58
9	0.3	0.5	73

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SHORTSPINE THORNYHEAD

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
177	104.7	0.5	247
223	57.2	0.4	111
214	50.0	0.2	197
3	44.5	0.4	159
60	41.7	0.1	176
160	40.5	0.4	138
271	33.4	0.1	236
219	26.7	0.2	150
66	20.8	0.3	283
94	17.9	0.2	202
71	14.5	0.3	160
244	14.1	0.3	121
267	13.8	0.2	115
67	12.5	0.2	202
161	10.6	0.4	209
274	10.3	0.2	124
216	9.9	0.9	161
23	9.0	0.5	115
269	8.9	0.7	81
242	8.6	0.4	112
222	8.0	0.3	147
221	6.9	0.2	184
224	6.7	0.6	90
231	6.2	0.4	134
61	3.0	0.3	290
176	2.9	0.3	134
251	2.9	0.2	147
243	2.4	0.4	123
10	1.8	0.8	127
62	0.8	0.2	120
12	0.6	0.9	135
68	0.4	0.7	93
183	0.2	0.2	137

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ROUGH EYE ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
214	413.2	1.6	197
250	260.5	1.3	115
239	86.8	0.9	144
94	48.1	1.4	202
221	45.4	1.3	184
256	43.8	0.8	107
249	42.8	1.5	161
12	32.2	0.9	135
60	30.7	1.3	176
171	29.3	0.7	79
253	28.8	0.5	111
172	26.0	0.9	86
71	23.7	1.1	160
233	17.6	1.4	90
267	17.3	0.4	115
134	16.8	0.7	109
257	13.5	0.5	98
139	13.3	0.5	96
274	13.0	0.5	124
242	11.3	0.5	112
135	10.8	0.7	106
56	10.0	0.8	90
271	10.0	2.4	236
154	9.1	1.4	105
161	9.1	1.5	209
203	8.9	1.2	113
246	8.7	0.6	91
125	7.8	1.4	117
202	7.7	0.7	124
153	7.0	1.2	125
235	6.7	0.5	103
269	6.5	0.4	81
251	6.1	0.5	147
67	6.1	1.5	202
138	5.2	0.9	106
275	5.0	0.3	83
219	4.8	0.9	150
87	4.6	0.4	85
244	4.2	0.5	121
261	3.8	0.7	101
108	3.2	0.6	91
224	3.2	0.3	90
231	3.1	0.7	134
205	3.0	1.0	83
107	2.9	0.5	71
86	2.9	0.7	80
83	2.9	0.6	108
259	2.8	0.6	89

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ROUGH EYE ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
126	2.5	1.7	121
117	2.5	0.8	71
152	2.4	0.7	113
84	2.4	0.5	102
222	2.2	0.8	147
133	2.2	0.9	152
184	2.1	1.1	93
176	1.9	0.3	134
167	1.9	0.7	66
72	1.8	0.5	92
223	1.8	0.7	111
164	1.7	0.6	68
229	1.7	0.4	72
123	1.6	1.0	138
191	1.6	1.2	112
230	1.5	0.5	106
234	1.5	1.4	102
37	1.2	0.6	60
3	1.2	0.4	159
90	1.1	0.9	69
165	1.1	0.8	74
99	1.0	0.4	110
266	1.0	0.4	83
82	0.9	0.6	78
77	0.9	1.4	100
236	0.9	0.7	96
241	0.9	0.6	90
270	0.9	0.3	68
45	0.9	1.4	81
57	0.8	1.1	76
124	0.7	1.1	152
129	0.6	0.5	100
220	0.6	0.7	60
228	0.6	0.9	82
142	0.6	1.0	72
258	0.6	0.5	55
264	0.5	0.7	58
198	0.5	0.9	90
216	0.5	0.7	161
226	0.5	0.7	86
217	0.5	0.5	76
160	0.5	0.8	138
232	0.4	0.5	81
197	0.4	0.7	88
245	0.4	0.2	89
106	0.4	0.7	81
101	0.3	0.4	109
85	0.3	0.2	98

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES ROUGH EYE ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
113	0.3	0.5	73
10	0.3	0.2	127
118	0.2	0.3	73
29	0.1	0.1	58

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC OCEAN PERCH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
11	1058.8	0.3	77
226	452.0	0.8	86
224	329.4	0.7	90
160	214.9	0.6	138
12	162.8	0.5	135
223	131.7	0.5	111
99	108.2	0.8	110
68	100.1	0.7	93
244	71.2	0.6	121
230	52.1	0.9	106
95	44.5	0.5	111
76	44.2	0.3	88
62	36.5	0.6	120
58	33.8	0.2	44
121	28.0	0.3	62
3	27.7	0.5	159
183	23.9	0.6	137
77	23.7	0.4	100
75	17.2	0.3	85
267	17.0	0.4	115
29	15.3	0.5	58
218	15.3	0.6	96
268	15.2	0.3	95
245	14.5	0.3	89
275	14.0	0.4	83
74	13.3	0.4	90
23	12.1	0.6	115
101	12.0	0.6	109
242	11.0	0.6	112
176	9.0	0.4	134
220	8.8	0.2	60
241	8.3	0.4	90
219	7.7	0.6	150
70	6.5	0.2	64
154	6.2	1.2	105
4	5.9	0.1	42
78	5.6	0.4	70
240	5.5	0.2	67
103	3.5	0.2	57
115	3.4	0.2	67
86	3.3	0.3	80
222	3.0	1.1	147
82	2.8	0.2	78
253	2.6	0.3	111
235	2.5	0.4	103
187	2.4	0.1	44
73	2.2	0.3	83
221	2.1	0.6	184

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PACIFIC OCEAN PERCH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
26	2.1	0.4	65
89	2.0	0.3	69
174	1.9	0.4	74
104	1.9	0.2	77
108	1.9	0.4	91
10	1.8	0.8	127
81	1.7	0.4	71
88	1.5	0.1	43
38	1.4	0.8	48
217	1.4	0.4	76
238	1.4	0.9	88
102	1.3	0.4	79
248	1.3	0.1	56
233	1.2	0.9	90
106	1.1	0.3	81
60	1.1	0.8	176
243	1.0	0.9	123
122	1.0	0.6	107
113	0.9	0.3	73
161	0.9	0.7	209
163	0.9	0.3	66
232	0.9	0.3	81
93	0.9	0.3	73
22	0.8	0.2	49
140	0.8	0.3	73
259	0.8	0.3	89
216	0.7	0.2	161
246	0.7	0.3	91
125	0.6	1.1	117
130	0.4	0.4	95
92	0.4	0.3	69
94	0.4	0.5	202
236	0.4	0.5	96
205	0.3	0.5	83
65	0.3	0.1	64
257	0.3	0.3	98
117	0.2	0.2	71
90	0.2	0.4	69
33	0.2	0.1	40
80	0.1	0.1	68
147	0.1	0.1	58
39	0.1	0.0	61
211	0.0	0.2	69

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES DUSKY ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
268	240.6	1.5	95
226	129.2	1.7	86
220	112.3	1.4	60
29	96.7	1.6	58
248	42.5	1.2	56
181	32.3	1.2	77
174	21.2	1.5	74
140	16.7	1.1	73
74	12.2	1.6	90
218	7.0	1.5	96
229	5.6	1.9	72
54	5.0	0.4	43
263	4.4	1.1	33
75	4.3	2.1	85
147	3.2	1.2	58
26	2.9	0.9	65
241	2.9	1.4	90
142	2.9	1.3	72
89	2.8	1.0	69
236	2.6	1.3	96
4	2.2	1.4	42
234	1.8	1.6	102
267	1.7	1.4	115
269	1.7	1.9	81
270	1.4	1.7	68
223	1.4	2.0	111
260	1.3	1.4	69
62	1.3	2.5	120
233	1.2	1.8	90
224	1.2	1.8	90
272	1.1	1.1	53
208	1.1	1.0	82
245	1.0	1.6	89
259	1.0	1.5	89
183	1.0	1.5	137
95	1.0	1.6	111
275	0.9	1.4	83
146	0.9	1.4	51
68	0.9	1.4	93
240	0.9	1.0	67
58	0.9	0.5	44
22	0.7	0.6	49
202	0.7	1.1	124
135	0.6	0.9	106
244	0.6	0.9	121
77	0.6	0.9	100
43	0.6	0.2	39
160	0.6	1.0	138

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES DUSKY ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
194	0.5	0.3	36
106	0.2	0.4	81
88	0.2	0.2	43

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES NORTHERN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
29	1004.2	1.0	58
220	502.5	0.7	60
58	257.3	0.4	44
54	200.6	0.0	43
248	61.9	0.6	56
11	41.9	0.4	77
70	39.9	0.5	64
218	16.7	0.8	96
75	15.3	0.8	85
268	14.9	0.8	95
76	14.4	0.7	88
229	14.3	0.8	72
38	12.8	1.3	48
26	12.7	0.7	65
95	10.6	0.5	111
99	9.9	0.6	110
147	9.4	0.7	58
260	8.4	0.8	69
74	8.2	0.6	90
121	7.0	0.5	62
101	5.8	0.7	109
163	4.8	1.0	66
23	3.8	0.5	115
102	3.7	0.9	79
86	3.6	0.9	80
103	3.5	0.4	57
261	3.5	0.9	101
4	3.3	0.2	42
62	2.5	0.6	120
240	2.4	0.9	67
82	2.3	0.6	78
247	2.2	0.5	77
93	2.1	0.5	73
30	2.0	1.1	48
77	1.7	0.6	100
140	1.3	0.5	73
160	1.3	0.6	138
57	1.2	0.5	76
33	1.1	0.2	40
154	0.9	0.5	105
65	0.8	0.3	64
183	0.8	0.6	137
10	0.8	0.7	127
223	0.8	1.1	111
207	0.7	0.5	69
104	0.6	0.5	77
269	0.6	0.7	81
22	0.6	0.3	49

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES NORTHERN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
245	0.5	0.7	89
89	0.5	0.7	69
68	0.4	0.7	93
256	0.4	0.3	107
224	0.4	0.5	90
80	0.3	0.5	68
216	0.3	0.4	161
202	0.2	0.4	124
134	0.2	0.3	109
263	0.2	0.2	33
84	0.1	0.2	102
51	0.0	0.0	34
211	0.0	0.6	69

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES HARLEQUIN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
240	33.9	0.2	67
268	21.4	0.4	95
220	21.4	0.2	60
248	20.3	0.2	56
226	15.3	0.3	86
263	14.2	0.1	33
229	11.6	0.3	72
218	3.0	0.3	96
260	2.7	0.2	69
219	2.3	0.4	150
29	2.0	0.3	58
224	1.2	0.3	90
217	0.8	0.3	76
247	0.6	0.2	77
245	0.4	0.2	89
279	0.2	0.4	91

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES PYGMY ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
240	0.2	0.2	67

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SHARPCHIN ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
268	8.1	0.1	95
218	4.3	0.1	96
224	3.8	0.2	90
229	3.6	0.2	72
275	3.5	0.2	83
220	3.4	0.1	60
245	3.1	0.3	89
140	1.7	0.3	73
219	1.0	0.2	150
232	0.4	0.5	81
221	0.4	0.3	184
256	0.4	0.2	107
240	0.3	0.1	67
237	0.2	0.3	77
183	0.2	0.3	137
260	0.2	0.1	69
267	0.2	0.3	115
241	0.2	0.2	90
62	0.1	0.1	120
259	0.1	0.1	89

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SHORTRAKER ROCKFISH

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
214	126.1	4.1	197
94	35.2	2.2	202
60	11.7	4.1	176
67	11.1	2.8	202
71	7.7	3.4	160
221	7.1	3.1	184
133	5.9	5.0	152
161	5.4	2.7	209
271	5.0	6.1	236
135	3.3	2.4	106
219	2.0	3.2	150
66	1.2	1.4	283

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES SIDESTRIPE SHRIMP

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
203	17.8	0.0	113
251	9.9	0.0	147
256	7.7	0.0	107
239	6.0	0.0	144
202	5.5	0.0	124
231	5.2	0.0	134
274	4.4	0.0	124
249	3.9	0.0	161
253	3.1	0.0	111
261	2.7	0.0	101
250	2.4	0.0	115
242	2.0	0.0	112
257	1.7	0.0	98
276	1.6	0.0	110
267	1.4	0.0	115
153	1.2	0.0	125
167	1.0	0.0	66
223	0.9	0.0	111
244	0.8	0.0	121
216	0.7	0.0	161
138	0.7	0.0	106
160	0.5	0.0	138
188	0.5	0.0	119
219	0.5	0.0	150
183	0.4	0.0	137
233	0.4	0.0	90
152	0.4	0.0	113
149	0.3	0.0	84
235	0.2	0.0	103
259	0.2	0.0	89
269	0.2	0.0	81
204	0.1	0.0	127
172	0.1	0.0	86
94	0.1	0.0	202
198	0.1	0.0	90
243	0.1	0.0	123
139	0.1	0.0	96
176	0.1	0.0	134
222	0.1	0.0	147
214	0.0	0.0	197
60	0.0	0.0	176
161	0.0	0.0	209
189	0.0	0.0	92
3	0.0	0.0	159

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES DUNGENESS CRAB

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
195	1.1	0.8	22
197	0.6	1.0	88
131	0.1	0.1	11

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES TANNER CRAB UNIDENT.

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
87	1.2	0.4	85
135	1.1	0.5	106
92	0.6	0.5	69
88	0.6	0.2	43
90	0.6	0.9	69
125	0.5	0.2	117
108	0.3	0.5	91
72	0.3	0.2	92
124	0.3	0.1	152
110	0.3	0.1	87
84	0.2	0.2	102
126	0.2	0.3	121
130	0.1	0.1	95

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES BROAD SNOW CRAB (=TANNER CRAB)

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
173	9.4	0.2	80
249	6.9	0.5	161
168	2.9	0.6	53
202	2.5	0.4	124
45	2.3	0.5	81
250	2.0	0.6	115
172	2.0	0.7	86
240	1.7	0.2	67
138	1.5	0.1	106
166	1.2	0.3	41
190	1.1	0.5	85
160	1.0	0.2	138
198	1.0	0.4	90
199	0.9	0.5	71
46	0.8	0.4	49
189	0.7	0.1	92
192	0.6	0.9	75
252	0.6	0.5	60
188	0.5	0.1	119
39	0.5	0.3	61
140	0.5	0.7	73
239	0.4	0.2	144
139	0.4	0.1	96
174	0.3	0.1	74
137	0.3	0.1	63
49	0.3	0.2	44
149	0.3	0.2	84
167	0.2	0.0	66
257	0.2	0.0	98
256	0.2	0.1	107
143	0.2	0.1	55
203	0.1	0.1	113
258	0.1	0.1	55
231	0.1	0.1	134
200	0.1	0.1	47
204	0.1	0.1	127
106	0.1	0.1	81
251	0.1	0.0	147
161	0.1	0.1	209
8	0.1	0.1	45
152	0.0	0.0	113
150	0.0	0.0	33
279	0.0	0.0	91

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES GOLDEN KING CRAB

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
12	0.9	1.4	135
222	0.8	1.1	147
72	0.7	1.0	92

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES RED KING CRAB

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
71	1.0	1.4	160
214	0.0	0.0	197

1990 GOA TRIENNIAL SURVEY
F/V GREEN HOPE

SPECIES WEATHERVANE SCALLOP

HAUL	CATCH KG/1.0 NM	AV WGT (KG)	GEAR DEPTH (FM)
186	0.3	0.4	36
181	0.2	0.1	77
146	0.2	0.2	51
200	0.1	0.1	47

APPENDIX

Trawl Specifications and Diagrams

Table A1.-- Specifications of the roller gear, otter door and accessory gear used by the U.S. chartered trawlers Pat San Marie and Green Hope during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.

Equipment	Specifications
Netting -	Polyethylene, 12.7 cm (5 in), 4 & 5 millimeter (mm) twine.
Headrope -	27.2 m (89 ft-1 in), 1.3 cm (1/2 in) 6 x 19 gauge galvanized wire rope, wrapped with 1 cm (3/8 in) 3-strand polypropylene rope.
Footrope -	24.9 m (81 ft-7 in), 1 cm (3/8 in) 6 x 19 gauge galvanized wire rope wrapped with polypropylene rope.
Fishing line -	24.3 m (79 ft-7 in), shot peened long link chain. Safe working load 5.1 metric ton (t).
Roller gear -	24.2 m (79 ft-6 in), 1.9 cm (3/4 in) diameter, 6 x 19 gauge galvanized wire rope strung through 10.2 cm (4 in) diameter rubber disks, 16 rubber wing bobbins 35.6 cm (14 in) in diameter and 34 galvanized rings hung with 30.5 cm (12 in) long dropper chain.
Breastlines -	1 cm (3/8 in) 6 x 19 gauge galvanized wire rope wrapped with 1 cm polypropylene. Top corner 5.9 m (19 ft-6 in); bottom corner 2.6 m (8 ft-8 in); top side panel 5.9 m; bottom side panel 9.3 m (30 ft-6 in).
Riblines -	1.9 cm (3/4 in) Sampson ^{*/} 2 & 1 Duralon ^{*/} . Top two 34.8 m (114.17 ft) and bottom two 31.8 m (104.45 ft), hung 98% of stretched seam length.
Floatation -	Cycolac ^{*/} trawl floats, 30.5 cm (12 in) diameter, 21 pieces. Buoyancy 10.2 kg (22.4 lb.) each and rated for 800 m (400 fm) depth.

^{*/}Reference to trade names does not imply endorsement by the National Marine Fisheries Service, NOAA.

Table A1 --continued

Equipment	Specifications
Codend liner -	Nylon, no. 18, 3.2 cm (1-1/4 in) stretched mesh (M), 315 M circumference and 200 M deep, laced to inner bag. When stretched the liner protrudes 61-91 cm (2 to 3 ft) beyond codend.
Restrictors -	Polypropylene rope, 2.5 cm (1 in) diameter, 4.3 m (14 ft) circumference and secured loosely to codend at each ribline, 1.2 m (4 ft) apart, 5 pieces.
Splitting gear -	1.3 cm (1/2 in) diameter 6.4 m (21 ft) long galvanized wire rope is passed through 4 galvanized steel rings which are secured to the codend with 1.3 cm diameter braided nylon "spiders".
Side seams -	Panels are joined to each other gathering 3 M (4 knots) from each panel. Panels which are secured to framing lines have a selvaged edge created by gathering 3 M.
Rigging -	3 dandy lines each side, 1.6 cm (5/8 in) diameter galvanized wire rope, 54.9 m (30 fm) long.
Doors -	1.8 m x 2.7 m (6 x 9 ft), steel V-doors, approximately 800 kg (1,800 lb) each.
Chafing gear-	Polypropylene 10 in M, 1 cm (3/8 in) polyrope hog-ringed (or interwoven) together, 46 M circumference and 21 1/2 M deep, laced to outer bag 68.5 M up from the pucker rings.

Framing lines 89'1"/120'7"

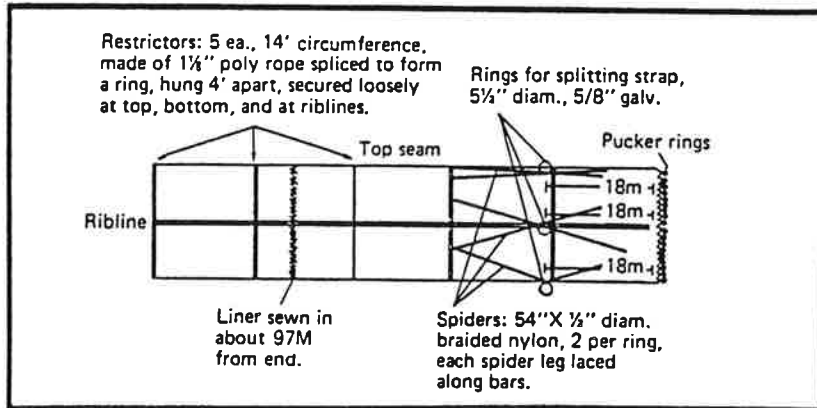
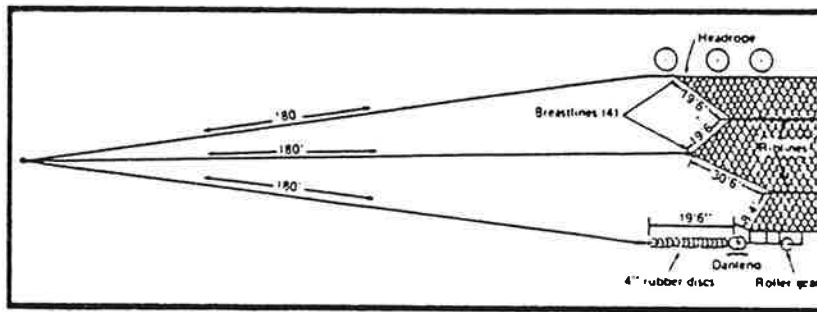
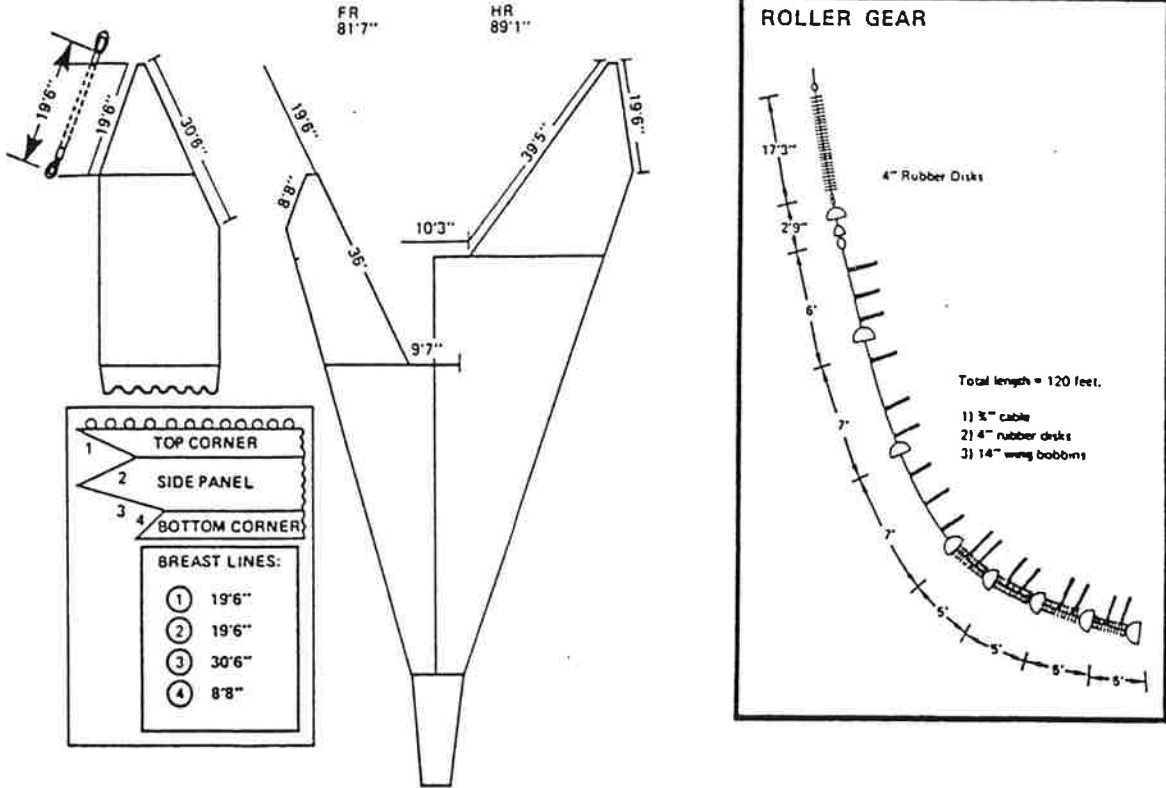


Figure A1. --Schematic diagram of the bottom trawl, roller gear and accessory gear used by the chartered trawlers Pat San Marie and Green Hope during the 1990 triennial bottom trawl survey of the central and western Gulf of Alaska.