

CATCH AND EFFORT DATA BY DEPTH INTERVAL
FOR AREAS FISHED BY OREGON
SHRIMP TRAWLERS, 1958-66

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INTRODUCTION

This report summarizes available commercial catch, effort and catch per unit of effort data for pink shrimp, Pandalus jordani Rathbun, fished by Oregon-based vessels during the period from 1958 to 1966. The data are tabulated by 10-fathom (18.3 meter) depth interval for area and month. These data have been included in other reports, notably the PMFC Data Series, but have not been tabulated before by depth of catch. This report may prove useful to researchers and fishermen by providing information on distribution of shrimp by depth of substrate, as reflected by pounds of shrimp landed per tow hour. However, these data are biased by the fact that most fishing effort is applied to areas where the best catches are made and thus may not always reflect the abundance of shrimp throughout the bed. Population density near the perimeter of the shrimp bed usually drops off, and this is reflected by a change in the pounds of shrimp caught per tow hour. The density of shrimp by depth range may vary from area to area. The amount of bottom area within each 10-fathom depth interval varies along the coast because of the difference in the slope of the continental shelf. For example, the width of the three intervals between 60 and 90 fathoms off Port Orford is 1 mile, while off Tillamook Head it is 3 miles. Both research and commercial fishing have shown that shrimp concentrations are usually found on a green mud or muddy sand bottom that is flat or has a gentle slope.

SOURCES OF INFORMATION

The Fish Commission has records obtained from shrimp boat logbooks since 1958 which provide data on date, time, duration, location, depth and catch by tow. Some of the logbook information is complete but records vary with

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individuals and between years. Prior to 1966, data were obtained on a voluntary basis. Since 1966 the Fish Commission has required that such records be kept.

METHODS

Information was compiled from logbook data for nine areas of catch (Figure 1) by month and by 10-fathom depth interval. Where possible, actual reported deliveries were used. Most data, however, are based on hails (estimates) only. Logs without depth, time or area fished were excluded. Unassignable landings were not prorated. Therefore, most catch and effort totals in this report will be less than totals reported for the same area in other published reports.

SHRIMP FISHING AREAS

Shrimp landed in Oregon were assigned to nine areas of catch (Figure 1). They include major areas of fishing and are usually separated by either natural boundaries--reefs or other bottom obstructions--or by geo-economic boundaries, such as location of nearest port or processor (Table 1).

Table 1. Boundaries of shrimp fishing areas in Oregon

Area	Boundaries	
	Northern	Southern
1	Cape Elizabeth	Astoria Canyon
2	Astoria Canyon	Cape Meares
3	Cape Meares	Cascade Head
4	Cascade Head	Cape Perpetua
5	Cape Perpetua	Cape Arago
6	Cape Arago	Cape Blanco
7	Cape Blanco	Rogue River Reef
8	Rogue River Reef	Point St. George
9	Point St. George	Cape Mendocino

Area 1 is off Washington and is bounded by Cape Elizabeth and Astoria Canyon. Most catches within this area come from between 60 and 70 fathoms off Grays Harbor. This area is not frequently fished by Oregon fishermen.

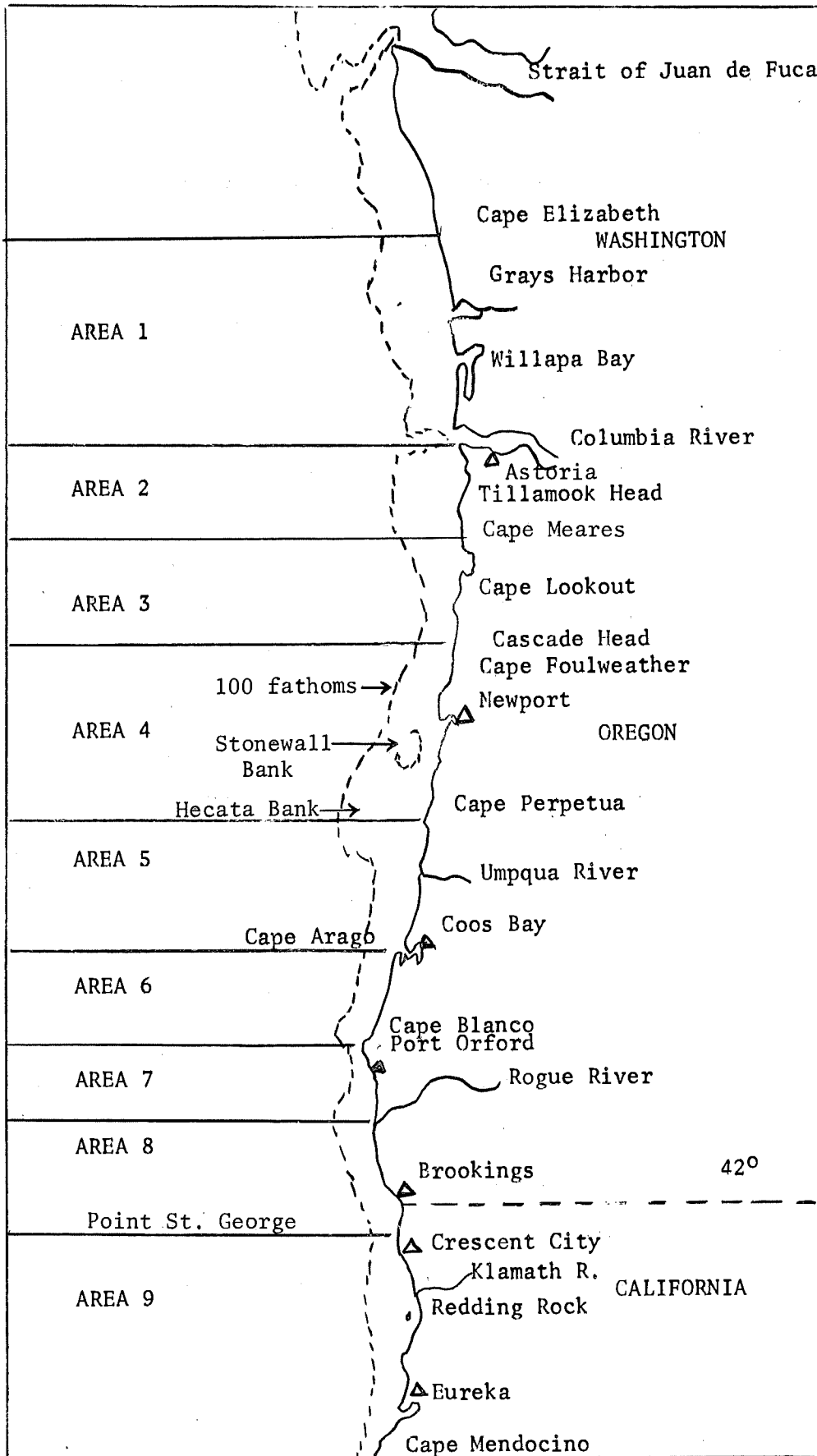


Figure 1. Area designations for shrimp catch and effort by Oregon-based vessels.

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Area 2 is bounded by the Astoria Canyon and Cape Meares and it includes a shrimp fishing area centered off Tillamook Head in 60-80 fathoms which has been fished by Astoria area fishermen since 1957.

Area 3 includes a fishing center off Cape Lookout in 70-90 fathoms. The area is bounded by Cape Meares and Cascade Head. This area has been subject to fishing by Astoria area fishermen since 1958.

Area 4 includes a shrimp population located between 80-100 fathoms off Cape Foulweather. Fishing by Newport-based trawlers has occurred here since 1964. Although the boundaries extend from Cascade Head to Cape Perpetua, no fishing has been done between Cape Perpetua and Yaquina Bay due to untrawlable bottom on Hecata and Stonewall banks.

Area 5, from Cape Perpetua to Cape Arago, includes a shrimp concentration located northwest of Coos Bay which has been of major importance in the Oregon fishery since 1962. Area 5 is divided into two parts. Area 5a includes the above mentioned area, where the major effort is expended between 80 and 100 fathoms, and an area off the Umpqua River in 50-60 fathoms. This area is not frequently fished. All data for 50-60 fathoms come from fishing off the Umpqua. Area 5b is on the southeastern bight of Hecata Bank and has yielded marginal catches at times.

Area 6, from Cape Arago to Cape Blanco, includes a shrimp bed centered off Coquille Point in 60-80 fathoms extending from Coquille Bank to Cape Arago. Coos Bay and, infrequently, Port Orford-based vessels have fished in Area 6 since 1962.

Area 7, between Cape Blanco and the Rogue River reef, includes a shrimp population off Port Orford that may be discreet. Port Orford vessels have fished in area 7 since 1964 as have Brookings-based vessels since 1962. Major depths fished are between 60 and 70 fathoms.

Area 8 extends from the Rogue River reef to Pt. St. George. The major fishing effort is in 60-75 fathoms from Mack Arch to Pt. St. George. It has been fished by Brookings-based vessels since 1959.

Area 9 is off northern California between Pt. St. George and Cape Mendocino. Most fishing in area 9 was done off the Klamath River and Redding Rock in 60-80 fathoms. Boats from Brookings have fished this area since 1959.

The continental shelf in areas 7 to 9 is steep and fishing usually confined to comparatively narrow depth intervals.

Tables 2 through 11 summarize data for the respective areas by 10-fathom depth interval, month and year.

ACKNOWLEDGMENTS

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Special thanks are due to James M. Meehan for his many useful suggestions and technical assistance, to the many Fish Commission of Oregon personnel who collected data and certainly to the fishermen who painstakingly kept the logbook information on which this report is based.

Table 2. Summary of Oregon shrimp landings by year, month and depth for area 1 for 1960-64

Depth (fms)	Month			Total
	June	July	August	
1960 Summary				
40-49				
Pounds			100	100
Hours			1.8	1.8
Lb/hr			56	56
50-59				
Pounds			700	700
Hours			7.2	7.2
Lb/hr			97	97
60-69				
Pounds			1,500	1,500
Hours			9.5	9.5
Lb/hr			158	158
Total				
Pounds			2,300	2,300
Hours			18.5	18.5
Lb/hr			124	124
1961 Summary				
60-69				
Pounds	7,300	17,400	8,800	33,500
Hours	19.3	48.8	27.0	95.1
Lb/hr	378	357	326	352
70-79				
Pounds	20,400	22,300	12,500	55,200
Hours	49.3	51.3	40.1	140.7
Lb/hr	414	435	312	392
80-89				
Pounds		3,600		3,600
Hours		11.0		11.0
Lb/hr		327		327
Total				
Pounds	27,700	43,300	21,300	92,300
Hours	68.6	111.1	67.1	246.8
Lb/hr	404	390	317	374

Table 2. (Cont'd)

Depth (fms)	Month			Total
	June	July	August	
1962 Summary				
50-59				
Pounds		500		500
Hours		2.5		2.5
Lb/hr		200		200
60-69				
Pounds	15,225	12,800		28,025
Hours	50.1	32.6		82.7
Lb/hr	304	393		339
70-79				
Pounds	10,350	400		10,750
Hours	36.8	2.3		39.1
Lb/hr	281	174		275
Total				
Pounds	25,575	13,700		39,275
Hours	86.9	37.4		124.3
Lb/hr	294	366		316
1963 Summary				
50-59				
Pounds	6,250			6,250
Hours	14.3			14.3
Lb/hr	437			437
60-69				
Pounds	500			500
Hours	2.6			2.6
Lb/hr	192			192
70-79				
Pounds		600		600
Hours		3.5		3.5
Lb/hr		171		171
Total				
Pounds	6,750	600		7,350
Hours	16.9	3.5		20.4
Lb/hr	399	171		360

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Table 2. (Cont'd)

Depth (fms)	Month			Total
	June	July	August	
1964 Summary				
50-59				
Pounds		1,250		1,250
Hours		2.3		2.3
Lb/hr		543		543
60-69				
Pounds		1,850		1,850
Hours		4.8		4.8
Lb/hr		385		385
Total				
Pounds		3,100		3,100
Hours		7.1		7.1
Lb/hr		437		437

Table 3. Summary of Oregon shrimp landings by year, month and depth for area 2 for 1958-65

Depth (fms)	Month									Total
	Jan.	Feb	March	April	May	June	July	August	Sept.	
1958 Summary										
60-69										
Pounds							20,733			20,733
Hours							18.8			18.8
Lb/hr							1,103			1,103
70-79										
Pounds				1,200						1,200
Hours				1.8						1.8
Lb/hr				667						667
Total										
Pounds				1,200			20,733			21,933
Hours				1.8			18.8			20.6
Lb/hr				667			1,103			1,065
1959 Summary										
70-79										
Pounds	7,670	21,112	14,983	13,890	30,686		26,650	31,877	2,022	148,890
Hours	17.8	47.8	25.3	24.2	44.6		48.7	46.3	13.1	267.8
Lb/hr	431	442	592	574	688		547	688	154	556
80-89										
Pounds					1,329					1,329
Hours					4.8					4.8
Lb/hr					277					277
Total										
Pounds	7,670	21,112	14,983	13,890	32,015		26,650	31,877	2,022	150,219
Hours	17.8	47.8	25.3	24.2	49.4		48.7	46.3	13.1	272.6
Lb/hr	431	442	592	574	648		547	688	154	551

Table 3. (Cont'd)

Depth (fms)	Month								Total	
	Jan.	Feb.	March	April	May	June	July	August		Sept.
1960 Summary										
60-69										
Pounds					800	900	600	350		2,650
Hours					2.5	5.2	4.7	4.6		17.0
Lb/hr					320	173	128	76		156
70-79										
Pounds			5,920	15,900	5,400	11,200	1,200	11,100		60,720
Hours			12.1	31.2	23.2	29.8	26.9	42.3		165.5
Lb/hr			489	510	233	376	416	262		367
80-89										
Pounds						7,300				7,300
Hours						22.0				22.0
Lb/hr						332				332
Total										
Pounds			5,920	15,900	6,200	19,400	11,800	11,450		70,670
Hours			12.1	31.2	25.7	57.0	31.6	46.9		204.5
Lb/hr			489	510	241	340	373	244		346
1961 Summary										
70-79										
Pounds								3,300		3,300
Hours								9.0		9.0
Lb/hr								367		367
80-89										
Pounds					2,200	600	200			3,000
Hours					5.2	2.5	3.1			10.8
Lb/hr					423	240	65			278
Total										
Pounds					2,200	600	200	3,300		6,300
Hours					5.2	2.5	3.1	9.0		19.8
Lb/hr					423	240	65	367		318

Table 3. (Cont'd)

Depth (fms)	Month									Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	
1962 Summary										
60-69										
Pounds					2,250	250				2,500
Hours					9.0	3.3				12.3
Lb/hr					250	76				203
70-79										
Pounds				8,415	15,104	950		3,800		28,269
Hours				24.5	45.0	5.0		15.1		89.6
Lb/hr				343	336	190		252		316
80-89										
Pounds					14,450	350	7,100			21,900
Hours					39.3	2.7	16.2			58.2
Lb/hr					368	130	438			376
Total										
Pounds				8,415	31,804	1,550	7,100	3,800		52,669
Hours				24.5	93.3	11.0	16.2	15.1		160.1
Lb/hr				343	341	141	438	252		329
1963 Summary										
50-59										
Pounds								500		500
Hours								4.2		4.2
Lb/hr								119		119
60-69										
Pounds									37,300	37,300
Hours									64.9	64.9
Lb/hr									575	575
70-79										
Pounds					4,340	3,100	61,150	300	8,700	77,590
Hours					12.5	11.5	70.1	2.0	19.2	115.3
Lb/hr					347	270	872	150	453	673

Table 3. (Cont'd)

Depth (fms)	Month									Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	
80-89										
Pounds							7,000	30,100	2,500	39,600
Hours							4.0	66.3	8.0	78.3
Lb/hr							1,750	454	315	506
Total										
Pounds					4,340	3,100	68,150	30,900	48,500	154,990
Hours					12.5	11.5	74.1	72.5	92.1	262.7
Lb/hr					347	270	920	426	527	590
1964 Summary										
70-79										
Pounds				150	13,450	24,450	20,300			58,350
Hours				1.0	17.8	43.9	42.5			105.2
Lb/hr				150	756	557	478			555
80-89										
Pounds					24,300	8,500	900			33,700
Hours					29.0	19.1	3.7			51.8
Lb/hr					838	445	243			651
Total										
Pounds				150	37,750	32,950	21,200			92,050
Hours				1.0	46.8	63.0	46.2			157.0
Lb/hr				150	807	523	459			586
1965 Summary										
60-69										
Pounds					300					300
Hours					1.0					1.0
Lb/hr					300					300

Table 3. (Cont'd)

Depth (fms)	Month									Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	
70-79										
Pounds					1,000					1,000
Hours					2.0					2.0
Lb/hr					500					500
80-89										
Pounds				600	1,100					1,700
Hours				4.3	4.5					8.8
Lb/hr				140	244					193
Total										
Pounds				600	2,400					3,000
Hours				4.3	7.5					11.8
Lb/hr				140	320					254

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Table 4. Summary of Oregon shrimp landings by year, month and depth for area 3 for 1959-66.

Depth (fms)	Month							Total
	Feb.	April	May	June	July	August	Sept.	
1959 Summary								
80-89								
Pounds					2,800			2,800
Hours					8.6			8.6
Lb/hr					326			326
90-99								
Pounds		7,511						7,511
Hours		21.5						21.5
Lb/hr		349						349
Total								
Pounds		7,511			2,800			10,311
Hours		21.5			8.6			30.1
Lb/hr		349			326			343
1960 Summary								
70-79								
Pounds			0	500				500
Hours			2.0	2.2				4.2
Lb/hr			0	227				119
80-89								
Pounds		5,600	17,545		1,400	2,200		26,745
Hours		17.9	40.4		5.3	7.8		71.4
Lb/hr		313	434		264	282		375
90-99								
Pounds		8,500	30,395	500		11,300	3,200	53,895
Hours		22.3	70.3	2.8		31.3	7.3	134.0
Lb/hr		381	432	179		361	438	402
Total								
Pounds		14,100	47,940	1,000	1,400	13,500	3,200	81,140
Hours		40.2	112.7	5.0	5.3	39.1	7.3	209.6
Lb/hr		351	425	200	264	345	438	387

Table 4. (Cont'd)

Depth (fms)	Month							Total
	Feb.	April	May	June	July	August	Sept.	
1961 Summary								
70-79								
Pounds					0			0
Hours					2.0			2.0
Lb/hr					0			0
80-89								
Pounds			500	2,500	1,800		1,200	6,000
Hours			3.0	9.8	6.5		3.1	22.4
Lb/hr			167	255	277		387	268
90-99								
Pounds			1,500	7,500	8,625	500	1,900	20,025
Hours			2.0	18.3	37.6	2.7	5.6	66.2
Lb/hr			750	410	229	185	339	302
Total								
Pounds			2,000	10,000	10,425	500	3,100	26,025
Hours			5.0	28.1	46.1	2.7	8.7	90.6
Lb/hr			400	356	226	185	356	287
1962 Summary								
70-79								
Pounds						400		400
Hours						2.0		2.0
Lb/hr						200		200
80-89								
Pounds			1,100			200		1,300
Hours			5.2			2.0		7.2
Lb/hr			212			100		181
90-99								
Pounds	200		680	1,500		16,500	12,500	31,380
Hours	1.4		3.2	5.5		43.5	21.0	74.6
Lb/hr	143		213	273		379	595	421
Total								
Pounds	200		1,780	1,500		17,100	12,500	33,080
Hours	1.4		8.4	5.5		47.5	21.0	83.8
Lb/hr	143		212	273		360	595	395

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Table 4. (Cont'd)

Depth (fms)	Month							Total
	Feb.	April	May	June	July	August	Sept.	
1963 Summary								
60-69								
Pounds				0				0
Hours				3.0				3.0
Lb/hr				0				0
70-79								
Pounds						13,200	3,300	16,500
Hours						26.3	7.8	34.1
Lb/hr						502	423	484
80-89								
Pounds				33,300	28,500	52,860	29,500	144,160
Hours				80.9	72.7	117.7	76.2	347.5
Lb/hr				412	392	449	387	415
90-99								
Pounds		9,800	37,970	23,850	3,750	4,600		79,970
Hours		13.7	86.9	62.9	4.9	16.6		185.0
Lb/hr		715	437	379	765	277		432
Total								
Pounds		9,800	37,970	57,150	32,250	70,660	32,800	240,630
Hours		13.7	86.9	146.8	77.6	160.6	84.0	569.6
Lb/hr		715	437	389	416	440	390	422
1964 Summary								
70-79								
Pounds						750		750
Hours						3.3		3.3
Lb/hr						227		227
80-89								
Pounds		14,300	32,750	12,910	2,300			62,260
Hours		22.6	40.5	26.2	9.5			98.8
Lb/hr		633	809	493	242			630
90-99								
Pounds		28,450	57,450	9,450	550			95,900
Hours		41.1	71.5	17.3	2.1			132.0
Lb/hr		692	803	546	262			727
100-109								
Pounds						100		100
Hours						1.6		1.6
Lb/hr						63		63

Table 4. (Cont'd)

Depth (fms)	Month							Total
	Feb.	April	May	June	July	August	Sept.	
Total								
Pounds		42,750	90,200	22,360	3,700			159,010
Hours		63.7	112.0	43.5	16.5			235.7
Lb/hr		671	805	514	224			675
1965 Summary								
80-89								
Pounds		16,600	42,550		350			59,500
Hours		36.6	83.9		1.5			122.0
Lb/hr		454	507		233			488
90-99								
Pounds		24,900	15,200		3,350			43,450
Hours		57.8	54.7		15.3			127.8
Lb/hr		431	278		219			340
Total								
Pounds		41,500	57,750		3,700			102,950
Hours		94.4	138.6		16.8			249.8
Lb/hr		440	417		220			412
1966 Summary								
70-79								
Pounds			1,500			22,530	33,325	57,355
Hours			2.5			32.5	54.2	89.2
Lb/hr			600			693	615	643
80-89								
Pounds		300	6,500	16,850		27,975	40,300	91,925
Hours		2.5	15.5	27.4		32.3	64.1	141.8
Lb/hr		120	419	615		866	629	648
90-99								
Pounds		17,200	15,800	1,800				34,800
Hours		16.5	18.0	2.0				36.5
Lb/hr		1,042	878	900				953
Total								
Pounds		17,500	23,800	18,650		50,505	73,625	184,080
Hours		19.0	36.0	29.4		64.8	118.3	267.5
Lb/hr		921	661	634		779	622	688

Table 5. Summary of Oregon shrimp landings by year, month and depth for area 4 for 1964-66

Depth (fms)	Month				Total
	June	July	August	Sept.	
1964 Summary					
80-89					
Pounds	950	600			1,550
Hours	2.6	4.6			7.2
Lb/hr	365	130			215
120-129					
Pounds		100			100
Hours		1.3			1.3
Lb/hr		77			77
Total					
Pounds	950	700			1,650
Hours	2.6	5.9			8.5
Lb/hr	365	119			194
1966 Summary					
70-79					
Pounds	37,710	45,675	10,395	1,620	95,400
Hours	51.3	71.2	27.8	4.7	155.0
Lb/hr	735	642	374	345	615
80-89					
Pounds	133,383	84,105	92,522	59,895	369,905
Hours	165.5	117.1	190.7	185.1	658.4
Lb/hr	806	718	485	324	562
90-99					
Pounds	3,060	13,365	6,900	720	24,045
Hours	4.3	21.3	12.8	3.0	41.4
Lb/hr	712	627	539	240	581
100-109					
Pounds		3,690		90	3,780
Hours		6.8		1.5	8.3
Lb/hr		543		60	455
Total					
Pounds	174,153	146,835	109,817	62,325	493,130
Hours	221.1	216.4	231.3	194.3	863.1
Lb/hr	788	679	475	321	571

Table 6. Summary of Oregon shrimp landings by year, month and depth for area 5a for 1959-66

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
1959 Summary												
60-69												
Pounds										10		10
Hours										1.1		1.1
Lb/hr										9		9
70-79												
Pounds										30		30
Hours										2.0		2.0
Lb/hr										15		15
80-89												
Pounds					400					100		500
Hours					3.0					1.5		4.5
Lb/hr					133					67		111
90-99												
Pounds										1,400		1,400
Hours										4.6		4.6
Lb/hr										304		304
Total												
Pounds					400					1,540		1,940
Hours					3.0					9.2		12.2
Lb/hr					133					167		159
1960 Summary												
50-59												
Pounds							934					934
Hours							4.9					4.9
Lb/hr							191					191
60-69												
Pounds							1,797	150				1,947
Hours							6.0	1.5				7.5
Lb/hr							300	100				260

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
70-79												
Pounds								1,050	3,650			4,700
Hours								2.4	8.3			10.7
Lb/hr								438	440			439
80-89												
Pounds								1,550	8,303	6,203		16,056
Hours								9.0	33.9	23.0		65.9
Lb/hr								172	245	270		244
Total												
Pounds							2,731	2,750	11,953	6,203		23,637
Hours							10.9	12.9	42.2	23.0		89.0
Lb/hr							251	213	283	270		266
1961 Summary												
50-59												
Pounds						50	0					50
Hours						0.8	1.0					1.8
Lb/hr						63	0					28
60-69												
Pounds						25	4,868	0	0			4,893
Hours						1.0	14.4	1.0	1.3			17.7
Lb/hr						25	338	0	0			276
70-79												
Pounds					0	180	11,415	400		0		11,995
Hours					1.3	1.5	33.2	2.3		2.0		40.3
Lb/hr					0	120	344	174		0		298
80-89												
Pounds				37,283	22,874	60,188	85,016	74,990	30,281	6,367	560	317,559
Hours				40.0	29.8	93.8	185.4	175.3	81.5	23.7	6.0	635.5
Lb/hr				932	768	642	459	428	372	269	93	500

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
90-99												
Pounds					13,728	13,076	3,348	1,790				31,942
Hours					12.6	27.8	11.6	23.8				75.4
Lb/hr					1,090	470	289	75				424
100-109												
Pounds						6,655						6,655
Hours						13.3						13.3
Lb/hr						500						500
Total												
Pounds				37,283	36,602	80,174	104,647	77,180	30,281	6,367	560	373,094
Hours				40.0	43.7	138.2	245.6	202.4	82.8	25.7	6.0	784.4
Lb/hr				932	838	580	426	381	366	248	93	476

1962 Summary

50-59												
Pounds						0	100			400		500
Hours						2.7	3.0			4.0		9.7
Lb/hr						0	33			100		52
70-79												
Pounds						150	295			400		845
Hours						2.8	3.1			2.7		8.6
Lb/hr						54	95			148		98
80-89												
Pounds			746	29,908	56,431	1,855	43,713	14,047	25,890	25,478		197,968
Hours			6.5	75.0	129.1	10.8	123.8	38.1	73.8	99.2		556.3
Lb/hr			115	399	437	172	353	369	351	257		356
90-99												
Pounds			5,739	25,320	107,502	22,447	22,979	62,711	51,083	6,635		304,416
Hours			11.6	76.7	239.4	77.3	81.8	164.3	163.8	31.5		846.4
Lb/hr			495	330	449	290	281	382	312	211		360

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
100-109												
Pounds				56	800	6,996		8,198	985	255		17,290
Hours				1.8	1.5	38.2		26.4	8.8	2.9		79.6
Lb/hr				31	533	183		311	112	88		217
110-119												
Pounds						0						0
Hours						1.5						1.5
Lb/hr						5						0
Total												
Pounds			6,485	55,284	164,733	31,448	66,987	84,956	77,958	33,168		521,019
Hours			18.1	153.5	370.0	133.3	211.7	228.8	246.4	140.3		1,502.1
Lb/hr			358	360	445	236	316	371	316	236		347

1963 Summary

50-59												
Pounds							3,814					3,814
Hours							10.2					10.2
Lb/hr							374					374
70-79												
Pounds		2,500	2,780	31,085	2,034		6,240	7,943	25,702			78,284
Hours		4.2	3.3	58.3	9.6		16.3	15.1	36.3			143.1
Lb/hr		595	842	533	212		383	526	708			547
80-89												
Pounds	2,387	51,015	65,235	139,323	53,569	30,319	53,591	106,993	113,323	30,565	2,650	648,970
Hours	5.0	54.4	87.8	240.5	177.4	77.6	121.4	187.3	184.4	50.3	5.8	1,191.9
Lb/hr	477	938	743	579	302	391	441	571	615	608	457	544
90-99												
Pounds	3,180	5,065	162,326	60,909	17,121	11,722	24,749	13,652		26,228	850	325,802
Hours	5.6	12.7	234.8	124.0	59.9	35.2	54.1	31.5		29.8	3.7	591.3
Lb/hr	568	399	691	491	286	333	457	433		880	230	551

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
100-109												
Pounds	15,845	160	5,650	10,888			0					32,543
Hours	10.3	3.3	7.6	17.2			1.0					39.4
Lb/hr	1,538	48	743	633			0					826
110-119												
Pounds	12,450	0										12,450
Hours	16.7	1.5										18.2
Lb/hr	746	0										684
Total												
Pounds	33,862	58,740	235,991	242,205	72,724	42,041	88,394	128,588	139,025	56,793	3,500	1,101,863
Hours	37.6	76.1	333.5	440.0	246.9	112.8	203.0	233.9	220.7	80.1	9.5	1,994.1
Lb/hr	901	772	708	550	295	373	435	550	630	709	368	553

1964 Summary

50-59												
Pounds				0		63,828	31,858	47,335	1,460			144,481
Hours				1.5		88.4	75.3	108.2	6.6			280.0
Lb/hr				0		722	423	437	221			516
60-69												
Pounds						17,320	16,240	20,216	500	11,400		65,676
Hours						28.8	42.8	57.2	2.8	21.3		152.9
Lb/hr						601	379	353	179	535		430
70-79												
Pounds		9,350	13,579	0	300		77,097	28,161	54,705	72,262		255,454
Hours		8.9	14.1	2.0	3.9		180.9	91.3	97.2	131.8		530.1
Lb/hr		1,051	963	0	77		426	308	563	543		482
80-89												
Pounds		115,931	118,269	139,910	6,022	41,665	110,211	139,163	209,308	78,574		959,053
Hours		125.9	146.8	108.8	29.1	64.7	298.1	410.4	332.2	180.2		1,696.2
Lb/hr		921	806	1,286	207	644	370	339	630	436		565

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
90-99												
Pounds		37,277	129,701	53,030	1,150	5,390	21,194	94,264	45,624	4,047		391,677
Hours		34.3	150.9	53.2	7.0	17.5	63.4	245.3	83.7	21.8		677.1
Lb/hr		1,087	860	997	164	308	334	384	545	186		578
100-109												
Pounds		6,300	74,629	8,210			4,960	5,900				99,999
Hours		9.1	98.9	19.5			12.5	8.7				148.7
Lb/hr		692	755	421			397	678				672
110-119												
Pounds			13,550				500					14,050
Hours			14.3				2.0					16.3
Lb/hr			948				250					862
120-129												
Pounds			1,000									1,000
Hours			1.5									1.5
Lb/hr			667									667
Total												
Pounds		168,858	350,728	201,150	7,472	128,203	262,060	335,039	311,597	166,283		1,931,390
Hours		178.2	426.5	185.0	40.0	199.4	675.0	921.1	522.5	355.1		3,502.8
Lb/hr		948	822	1,087	187	643	388	364	596	468		551
1965 Summary												
50-59												
Pounds									1,040			1,040
Hours									4.5			4.5
Lb/hr									231			231
60-69												
Pounds				240	0	450						690
Hours				1.5	1.0	2.0						4.5
Lb/hr				160	0	225						153

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
70-79												
Pounds			9,743	1,280			894		2,500	35,510		49,927
Hours			28.6	2.7			4.4		3.9	83.0		122.6
Lb/hr			341	474			203		641	428		407
80-89												
Pounds			9,363	2,715	7,700	25,692	12,090	46,900	179,345	144,458		428,263
Hours			29.9	17.2	36.9	81.8	63.2	60.7	359.0	301.1		949.8
Lb/hr			313	158	209	314	191	773	500	480		451
90-99												
Pounds			12,132	28,507	22,950	41,471	15,390	89,120	39,835	17,080		266,485
Hours			40.6	82.6	94.8	164.1	53.0	274.2	117.2	35.1		861.6
Lb/hr			299	345	242	253	290	325	340	487		309
100-109												
Pounds			8,852	17,260	5,941	12,908	7,150	12,720	500			65,331
Hours			43.0	61.0	34.4	57.9	32.5	43.8	2.5			275.1
Lb/hr			206	283	173	223	220	290	200			237
110-119												
Pounds			240		3,025	340	3,920					7,525
Hours			2.5		14.5	2.1	16.9					36.0
Lb/hr			96		209	162	232					209
120-129												
Pounds				1,720	4,750		680					7,150
Hours				4.1	16.7		2.0					22.8
Lb/hr				420	284		340					314
Total												
Pounds			40,330	51,722	44,366	80,861	40,124	148,740	223,220	197,048		826,411
Hours			144.6	169.1	198.3	307.9	172.0	378.7	487.1	419.2		2,276.9
Lb/hr			279	306	224	263	233	393	458	470		363

Table 6. (Cont'd)

Depth (fms)	Month											Total
	Jan.	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
1966 Summary												
50-59												
Pounds					2,602		0	287	160	200		3,249
Hours					10.0		1.5	3.0	2.0	1.0		17.5
Lb/hr					260		0	96	80	200		186
60-69												
Pounds					3,630	12,530	92,224	6,930	18,668	2,060		136,042
Hours					7.8	34.6	173.8	25.2	54.5	5.8		301.7
Lb/hr					465	362	531	275	343	355		451
70-79												
Pounds			2,900	19,961	15,280	39,274	184,254	61,608	89,896	34,831		448,004
Hours			4.5	32.7	53.6	149.1	356.7	201.6	218.2	110.4		1,126.8
Lb/hr			644	610	285	263	517	306	412	315		398
80-89												
Pounds			241,757	89,187	37,226	8,610	44,184	18,140	131,154	5,156		575,414
Hours			305.1	113.5	134.2	49.3	138.2	95.6	237.5	39.8		1,113.2
Lb/hr			792	786	277	175	320	190	552	130		517
90-99												
Pounds			22,456	261,707	4,909	2,450	7,487	2,890	16,527	0		318,426
Hours			29.7	284.5	22.3	10.2	28.2	16.2	42.8	2.0		435.9
Lb/hr			756	920	220	240	265	178	386	0		731
100-109												
Pounds			45,233	31,692	100		420		3,250			80,695
Hours			50.8	41.5	1.5		1.3		7.6			102.7
Lb/hr			890	764	67		323		428			786
110-119												
Pounds			6,790									6,790
Hours			4.6									4.6
Lb/hr			1,476									1,476
Total												
Pounds			319,136	402,547	63,747	62,864	328,569	89,855	259,655	42,247		1,568,620
Hours			394.7	472.2	229.4	243.2	699.7	341.6	562.6	159.0		3,102.4
Lb/hr			809	852	278	258	470	263	462	266		506

Table 7. Summary of Oregon shrimp landings by year, month and depth for area 5b for 1964

Depth (fms)	July	Total
1964 Summary		
70-79		
Pounds	18,700	18,700
Hours	47.8	47.8
Lb/hr	391	391
80-89		
Pounds	3,450	3,450
Hours	8.5	8.5
Lb/hr	406	406
90-99		
Pounds	100	100
Hours	0.3	0.3
Lb/hr	333	333
Total		
Pounds	22,250	22,250
Hours	56.6	56.6
Lb/hr	393	393

Table 8. Summary of Oregon shrimp landings by year, month and depth for area 6 for 1962-66

Depth (fms)	Month									Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	
1962 Summary										
50-59										
Pounds						0	0	3,420	0	3,420
Hours						1.9	1.5	7.7	1.0	12.1
Lb/hr						0	0	444	0	283
60-69										
Pounds				160	8,345	31,333	360	28,000	0	68,198
Hours				1.0	17.8	32.7	3.4	40.2	0.8	95.9
Lb/hr				160	469	958	106	697	0	711
70-79										
Pounds						30,499	100	1,440	80	32,119
Hours						32.9	1.5	3.1	2.3	39.8
Lb/hr						927	67	465	35	807
80-89										
Pounds		1,451		0	24,087	3,140	34,340	1,200		64,218
Hours		5.0		1.5	33.5	4.0	51.7	6.3		102.0
Lb/hr		290		0	719	785	664	190		630
90-99										
Pounds		10,255	34,713	1,440	550	26,810	7,020			80,788
Hours		18.5	53.0	3.5	1.8	21.6	17.8			116.2
Lb/hr		554	665	411	306	1,241	394			695
100-109										
Pounds					0	19,261	1,300	240		20,801
Hours					1.8	17.9	11.8	3.0		34.5
Lb/hr					0	1,076	110	80		603
110-119										
Pounds						80				80
Hours						0.3				0.3
Lb/hr						267				267

Table 8. (Cont'd)

Depth (fms)	Month									
	Feb.	March	April	May	June	July	August	Sept.	Oct.	Total
120-129										
Pounds							6,312			6,312
Hours							12.7			12.7
Lb/hr							497			497
130-139										
Pounds							1,685			1,685
Hours							2.0			2.0
Lb/hr							843			843
Total										
Pounds			11,706	34,873	9,785	86,469	57,748	75,520	1,520	277,621
Hours			23.5	54.0	24.6	102.8	64.9	132.3	13.4	415.5
Lb/hr			498	646	398	841	890	571	113	668
1963 Summary										
50-59										
Pounds				80	2,608	743		4,850		8,281
Hours				0.6	2.3	1.5		11.6		16.0
Lb/hr				133	1,134	495		418		518
60-69										
Pounds				66,245	82,790	24,442		100		173,577
Hours				62.0	124.6	25.8		1.9		214.3
Lb/hr				1,068	664	947		53		810
70-79										
Pounds	9,680				5,240	35,585				50,505
Hours	5.2				11.9	44.1				61.2
Lb/hr	1,862				440	807				825
80-89										
Pounds	70,778	1,500		40	3,820	28,010				104,148
Hours	32.9	1.9		1.8	7.7	55.3				99.6
Lb/hr	2,151	789		22	496	507				1,046

Table 8. (Cont'd)

Depth (fms)	Month									Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	
90-99										
Pounds			40	160	270	40				510
Hours			2.4	1.5	1.0	1.2				6.1
Lb/hr			17	107	270	33				84
Total										
Pounds	80,458	1,500	40	66,525	94,728	88,820		4,950		337,021
Hours	38.1	1.9	2.4	65.9	147.5	127.9		13.5		397.2
Lb/hr	2,112	789	17	1,009	642	694		367		848
1964 Summary										
50-59										
Pounds				41,975	70,322	7,440		6,650		126,387
Hours				52.8	64.4	19.0		9.3		145.5
Lb/hr				795	1,092	392		715		869
60-69										
Pounds		53,998	61,667	191,662	251,297	79,548	13,414	175,289	1,450	828,325
Hours		28.6	41.6	208.6	285.7	156.5	33.7	186.3	5.2	946.2
Lb/hr		1,888	1,482	919	880	508	398	941	279	875
70-79										
Pounds		37,495	72,807	116,920	142,802	15,268	68,366	63,772	1,460	518,890
Hours		14.4	51.5	86.8	160.1	40.1	162.4	97.2	4.3	616.8
Lb/hr		2,604	1,414	1,347	892	381	421	656	340	841
80-89										
Pounds	5,957	20,543	480	11,333	28,593	15,646	17,423			99,975
Hours	0.8	15.4	1.5	15.9	25.1	33.1	33.2			125.0
Lb/hr	7,446	1,334	320	713	1,139	473	525			800
90-99										
Pounds		180			3,960	2,254	240			6,634
Hours		1.3			7.6	5.8	4.8			19.5
Lb/hr		138			521	389	50			340

Table 8. (Cont'd)

Depth (fms)	Month									Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	
100-109										
Pounds				1,800						1,800
Hours				3.1						3.1
Lb/hr				581						581
Total										
Pounds	5,957	112,216	134,954	363,690	496,974	120,156	99,443	245,711	2,910	1,582,011
Hours	0.8	59.7	94.6	367.2	542.9	254.5	234.1	292.8	9.5	1,856.1
Lb/hr	7,446	1,880	1,427	990	915	472	425	839	306	852
1965 Summary										
50-59										
Pounds		15,778	240		880		5,670			22,568
Hours		53.6	1.8		3.5		14.7			73.6
Lb/hr		294	133		251		386			307
60-69										
Pounds		26,334	2,160	0	3,563	11,200		47,780	350	91,387
Hours		66.6	8.0	1.5	10.6	19.4		84.6	2.0	192.7
Lb/hr		395	270	0	336	577		565	175	474
70-79										
Pounds		32,470	3,410	400	4,665	1,525	400	2,850	0	45,720
Hours		76.3	20.9	1.5	16.5	5.7	1.7	7.6	1.3	131.5
Lb/hr		426	163	267	283	268	235	375	0	348
80-89										
Pounds			0	0	2,160	4,960	1,530			8,650
Hours			1.5	2.0	7.9	13.6	2.3			27.3
Lb/hr			0	0	273	365	665			317
90-99										
Pounds					1,752	3,562	100			5,414
Hours					8.0	19.2	2.0			29.2
Lb/hr					219	186	50			185

Table 8. (Cont'd)

Depth (fms)	Month									Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	
100-109										
Pounds		630				120	90			840
Hours		2.7				2.1	2.0			6.8
Lb/hr		233				57	45			124
120-129										
Pounds			0			0	1,980			1,980
Hours			1.3			0.5	2.0			3.8
Lb/hr			0			0	990			521
Total										
Pounds		75,212	5,810	400	130,020	21,367	9,770	50,630	350	176,559
Hours		199.2	33.5	5.0	46.5	60.5	24.7	92.2	3.3	464.9
Lb/hr		378	173	80	280	353	396	549	106	380

1966 Summary

40-49										
Pounds				4,721						4,721
Hours				5.5						5.5
Lb/hr				858						858
50-59										
Pounds				106,152	72,819	4,000	15,215			198,186
Hours				131.6	107.5	10.9	35.8			285.8
Lb/hr				807	677	367	425			693
60-69										
Pounds				102,829	206,723	6,920	27,680	1,225	8,280	353,657
Hours				131.8	334.6	22.3	68.0	3.4	24.9	585.0
Lb/hr				780	618	310	407	360	333	605
70-79										
Pounds			0	2,655	78,320	22,748	21,639	24,958	33,658	183,978
Hours			1.8	9.6	142.1	49.6	54.2	43.4	109.2	409.9
Lb/hr			0	277	551	459	399	575	308	449

Table 8. (Cont'd)

Depth (fms)	Month									Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	
80-89										
Pounds		161		1,754	13,105		450		510	15,980
Hours		2.0		6.8	21.0		2.0		3.3	35.1
Lb/hr		81		258	624		225		155	455
90-99										
Pounds					7,777		14,621			22,398
Hours					21.0		27.3			48.3
Lb/hr					370		536			464
100-109										
Pounds				70	200		1,750			2,020
Hours				1.5	4.2		7.3			13.0
Lb/hr				47	48		240			155
Total										
Pounds		161	0	218,181	378,944	33,668	81,355	26,183	42,448	780,940
Hours		2.0	1.8	286.8	630.4	82.8	194.6	46.8	137.4	1,382.6
Lb/hr		81	0	761	601	407	418	559	309	565

Table 9. Summary of Oregon shrimp landings by year, month and depth for area 7 for 1962-66

Depth (fms)	Month							Total
	April	May	June	July	August	Sept.	Oct.	
1962 Summary								
60-69								
Pounds						10,900		10,900
Hours						16.0		16.0
Lb/hr						681		681
Total								
Pounds						10,900		10,900
Hours						16.0		16.0
Lb/hr						681		681
1963 Summary								
50-59								
Pounds				3,500				3,500
Hours				8.3				8.3
Lb/hr				422				422
60-69								
Pounds				100				100
Hours				1.5				1.5
Lb/hr				67				67
Total								
Pounds				3,600				3,600
Hours				9.8				9.8
Lb/hr				367				367
1964 Summary								
50-59								
Pounds	0		0	5,100	1,310	900	14,400	21,710
Hours	0.8		1.0	12.4	2.0	2.8	29.2	48.2
Lb/hr	0		0	411	655	321	493	450
60-69								
Pounds		17,300	14,300	176,550	5,815	66,650	18,150	298,765
Hours		13.3	18.9	219.9	16.5	73.4	33.8	375.8
Lb/hr		1,301	757	803	352	908	537	795
70-79								
Pounds	32,450	6,900	1,000	16,900	700	37,400	1,700	97,050
Hours	22.7	4.3	1.2	31.2	2.0	51.4	4.8	117.6
Lb/hr	1,430	1,605	833	542	350	728	354	825

Table 9. (Cont'd)

Depth (fms)	Month							Total
	April	May	June	July	August	Sept.	Oct.	
80-89								
Pounds	0							0
Hours	1.5							1.5
Lb/hr	0							0
Total								
Pounds	32,450	24,200	15,300	198,550	7,825	104,950	34,250	417,525
Hours	25.0	17.6	21.1	263.5	20.5	127.6	67.8	543.1
Lb/hr	1,298	1,375	725	754	382	822	505	769

1965 Summary

40-49								
Pounds					100			100
Hours					1.5			1.5
Lb/hr					67			67
50-59								
Pounds					16,600	3,050		19,650
Hours					51.8	9.1		60.9
Lb/hr					320	335		323
60-69								
Pounds	50	2,000	8,650	41,600	64,900	21,600	1,000	139,800
Hours	3.8	3.5	17.7	71.9	142.1	34.1	4.3	277.4
Lb/hr	13	571	489	579	457	633	233	504
70-79								
Pounds		2,300	900	400	1,750			5,350
Hours		5.1	2.2	1.2	5.0			13.5
Lb/hr		451	409	333	350			396
Total								
Pounds	50	4,300	9,550	42,000	83,350	24,650	1,000	164,900
Hours	3.8	8.6	19.9	73.1	200.4	43.2	4.3	353.3
Lb/hr	13	500	480	575	416	571	233	467

1966 Summary

50-59								
Pounds			81,750	11,900	29,930		500	124,080
Hours			87.0	22.1	44.5		1.5	155.1
Lb/hr			940	538	673		333	800

Table 9. (Cont'd)

Depth (fms)	Month							Total
	April	May	June	July	August	Sept.	Oct.	
60-69								
Pounds		20,200	80,125	56,100	19,230	37,700	1,600	214,955
Hours		25.4	83.8	78.5	36.2	45.6	9.8	279.3
Lb/hr		795	956	715	531	827	163	770
70-79								
Pounds			0	30,200	7,150		3,150	40,500
Hours			1.0	45.7	12.4		10.1	69.2
Lb/hr			0	661	577		312	585
Total								
Pounds		20,200	161,875	98,200	56,310	37,700	5,250	379,535
Hours		25.4	171.8	146.3	93.1	45.6	21.4	503.6
Lb/hr		795	942	671	605	827	245	754

Table 10. Summary of Oregon shrimp landings by year, month and depth for area 8 for 1959-66

Depth (fms)	Month										Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
1959 Summary											
50-59											
Pounds						2,700	6,698	700			10,098
Hours						9.0	17.5	1.8			28.3
Lb/hr						300	383	389			357
60-69											
Pounds					500	14,440	50,733	12,800			78,583
Hours					5.5	34.1	123.5	21.2			184.3
Lb/hr					91	423	411	604			426
70-79											
Pounds						2,000	300				2,300
Hours						5.7	1.0				6.7
Lb/hr						351	300				343
Total											
Pounds					500	19,250	57,731	13,500			90,981
Hours					5.5	48.8	142.0	23.0			219.3
Lb/hr					91	394	407	587			415
1960 Summary											
40-49											
Pounds			0	950		4,000					5,950
Hours			0.8	4.3		22.6					27.7
Lb/hr			0	221		177					215
50-59											
Pounds			450	19,058	3,595	23,465	52,480	5,085			104,133
Hours			2.0	70.8	14.4	76.0	115.7	16.5			295.4
Lb/hr			225	269	250	309	454	308			353
60-69											
Pounds			10	1,245	35,390	9,675	1,390	25,250	8,930		81,890
Hours			1.0	4.4	54.8	31.4	6.2	61.5	19.5		178.8
Lb/hr			10	283	646	308	224	411	458		458

Table 10. (Cont'd)

Depth (fms)	Month										Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	
70-79											
Pounds			60		0						60
Hours			1.9		1.3						3.2
Lb/hr			32		0						19
Total											
Pounds			520	21,253	38,985	38,140	53,870	30,335	8,930		192,033
Hours			5.7	79.5	70.5	130.0	121.9	78.0	19.5		505.1
Lb/hr			91	267	553	293	442	389	458		380
1961 Summary											
50-59											
Pounds						115	115				230
Hours						1.0	0.8				1.8
Lb/hr						115	144				128
60-69											
Pounds					300	20,540	17,045	34,725	27,140	10,350	110,100
Hours					4.0	34.4	37.2	47.7	42.9	22.1	188.3
Lb/hr					75	597	458	728	633	468	585
80-89											
Pounds					805						805
Hours					5.1						5.1
Lb/hr					158						158
Total											
Pounds					1,105	20,655	17,160	34,725	27,140	10,350	111,135
Hours					9.1	35.4	38.0	47.7	42.9	22.1	195.2
Lb/hr					121	583	452	728	633	468	569
1962 Summary											
50-59											
Pounds						500			900		1,400
Hours						4.0			2.4		6.4
Lb/hr						125			375		219

Table 10. (Cont'd)

Depth (fms)	Month										Total	
	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.		
60-69												
Pounds		575	575	1,850	3,500	64,110	32,055	10,100	29,050	1,340		143,155
Hours		4.8	1.7	4.0	14.0	123.1	106.8	23.3	53.0	3.7		334.4
Lb/hr		120	338	463	250	521	300	433	548	362		428
70-79												
Pounds	60					2,080	26,700	30,707	2,600			62,147
Hours	1.2					3.5	72.8	76.8	3.3			157.6
Lb/hr	50					594	367	400	788			394
80-89												
Pounds	1,150	928										2,078
Hours	5.7	5.8										11.5
Lb/hr	202	160										181
90-99												
Pounds		115										115
Hours		1.1										1.1
Lb/hr		105										105
Total												
Pounds	1,210	1,618	575	1,850	3,500	66,690	58,755	40,807	32,550	1,340		208,895
Hours	6.9	11.7	1.7	4.0	14.0	130.6	179.6	100.1	58.7	3.7		511.0
Lb/hr	175	138	338	463	250	511	327	408	555	362		409

1963 Summary

50-59												
Pounds		200				0						200
Hours		1.0				1.0						2.0
Lb/hr		200				0						100
60-69												
Pounds		2,600	0	5,420		1,890	9,250	0				19,160
Hours		3.0	2.3	13.3		6.8	51.8	1.0				78.2
Lb/hr		867	0	408		278	179	0				245
70-79												
Pounds			17,000	44,167	15,037	24,585	5,075	24,985				130,849
Hours			29.2	97.1	55.8	83.7	23.1	98.3				387.2
Lb/hr			582	455	269	294	220	254				338

Table 10. (Cont'd)

Depth (fms)	Month											Total
	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.		
80-89												
Pounds				350	2,215							2,565
Hours				1.5	5.5							7.0
Lb/hr				233	403							366
Total												
Pounds		2,800	17,000	49,937	17,252	26,475	14,325	24,985				152,774
Hours		4.0	31.5	111.9	61.3	91.5	74.9	99.3				474.4
Lb/hr		700	540	446	281	289	191	252				322
1965 Summary												
40-49												
Pounds								50				50
Hours								1.0				1.0
Lb/hr								50				50
60-69												
Pounds					500		115,175	55,100	18,300			189,075
Hours					6.5		398.1	215.2	54.5			674.3
Lb/hr					77		289	256	336			280
70-79												
Pounds					1,850	22,825	78,252	22,300	70,250			195,477
Hours					13.7	68.5	245.6	80.8	165.0			573.6
Lb/hr					135	333	319	276	426			341
80-89												
Pounds									5,500			5,500
Hours									11.3			11.3
Lb/hr									487			487
90-99												
Pounds							0					0
Hours							2.0					2.0
Lb/hr							0					0

Table 10. (Cont'd)

Depth (fms)	Month										
	Feb.	March	April	May	June	July	August	Sept.	Oct.	Nov.	Total
Total											
Pounds					2,350	22,825	193,427	77,450	94,050		390,102
Hours					20.2	70.5	643.7	297.0	230.8		1,262.2
Lb/hr					116	324	300	261	407		309
1966 Summary											
50-59											
Pounds						350	300				650
Hours						2.5	2.5				5.0
Lb/hr						140	120				130
60-69											
Pounds					22,550	41,500	26,500	16,350	5,530		112,430
Hours					80.2	71.6	90.3	74.0	15.5		331.6
Lb/hr					281	580	293	221	357		339
70-79											
Pounds						6,550	500				7,050
Hours						12.3	3.0				15.3
Lb/hr						533	167				461
Total											
Pounds					22,550	48,400	27,300	16,350	5,530		120,130
Hours					80.2	86.4	95.8	74.0	15.5		351.9
Lb/hr					281	560	285	221	357		341

Table 11. Summary of Oregon shrimp landings by year, month and depth for area 9 for 1959-66

Depth (fms)	Month										Total
	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.		
1959 Summary											
60-69											
Pounds				850	2,275	1,600	22,540				27,265
Hours				1.0	1.4	4.0	37.0				43.4
Lb/hr				850	1,625	400	609				628
70-79											
Pounds					4,780	10,600					15,380
Hours					3.5	18.8					22.3
Lb/hr					1,366	564					690
80-89											
Pounds					2,220						2,220
Hours					2.7						2.7
Lb/hr					822						822
Total											
Pounds				850	9,275	12,200	22,540				44,865
Hours				1.0	7.6	22.8	37.0				68.4
Lb/hr				850	1,220	535	609				656
1960 Summary											
40-49											
Pounds						13,100					13,100
Hours						16.4					16.4
Lb/hr						799					799
50-59											
Pounds			700	12,275		13,650	31,620	2,200			60,445
Hours			1.3	15.7		18.5	29.4	2.8			67.7
Lb/hr			538	782		738	1,076	786			893
60-69											
Pounds		50	2,700								2,750
Hours		2.0	5.9								7.9
Lb/hr		25	458								348
70-79											
Pounds								250			250
Hours								2.6			2.6
Lb/hr								96			96
Total											
Pounds		50	3,400	12,275		26,750	31,620	2,450			76,545
Hours		2.0	7.2	15.7		34.9	29.4	5.4			94.6
Lb/hr		25	472	782		766	1,076	454			809

Table 11. (Cont'd)

Depth (fms)	Month									
	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	Total
1961 Summary										
40-49										
Pounds						0	420	1,330	15,120	16,870
Hours						1.0	1.8	4.0	16.8	23.6
Lb/hr						0	233	333	900	715
50-59										
Pounds					6,330	50,046	68,100	18,490	6,720	149,686
Hours					17.8	78.7	85.1	32.4	10.5	224.5
Lb/hr					356	636	800	571	640	667
60-69										
Pounds					29,200	33,840	47,445	6,580	2,380	119,445
Hours					53.8	59.9	50.9	9.7	3.8	178.1
Lb/hr					543	565	932	678	626	671
70-79										
Pounds							32,840	1,840		34,680
Hours							27.6	5.0		32.6
Lb/hr							1,190	368		1,064
Total										
Pounds					35,530	83,886	148,805	28,240	24,220	320,681
Hours					71.6	139.6	165.4	51.1	31.1	458.8
Lb/hr					396	601	900	553	779	699
1962 Summary										
40-49										
Pounds			10,830	5,200	0			400	600	17,030
Hours			16.6	3.0	1.2			1.5	1.5	23.8
Lb/hr			652	1,733	0			267	400	716
50-59										
Pounds			29,250	16,250		2,800	100	39,655	32,645	120,700
Hours			40.0	38.6		4.5	1.4	67.3	38.6	190.4
Lb/hr			731	421		622	71	589	846	634
60-69										
Pounds			21,300	44,790	900		11,380	9,800		88,170
Hours			39.5	63.2	4.0		25.7	4.5		136.9
Lb/hr			539	709	225		443	218		644
70-79										
Pounds	800		115	87,698	35,105	14,040	87,820	59,037	28,000	312,615
Hours	4.0		1.0	139.5	55.7	33.1	134.5	88.1	23.9	479.8
Lb/hr	200		115	629	630	424	653	670	1,172	652

44. Table 11. (Cont'd)

Depth (fms)	Month									Total
	Feb.	Mar.	April	May	June	July	August	Sept.	Oct.	
80-89										
Pounds		150	9,000	91,482	28,535	5,150	50,010	6,210	300	190,837
Hours		1.2	11.8	110.3	48.1	14.0	88.9	17.4	0.5	292.2
Lb/hr		125	763	829	593	368	563	357	600	653
90-99										
Pounds					2,400	1,200	7,020			10,620
Hours					5.6	8.7	10.9			25.2
Lb/hr					429	138	644			421
100-109										
Pounds					6,200					6,200
Hours					11.1					11.1
Lb/hr					559					559
110-119										
Pounds					400					400
Hours					1.0					1.0
Lb/hr					400					400
Total										
Pounds	800	150	70,495	245,420	73,540	23,190	156,330	115,102	61,545	746,572
Hours	4.0	1.2	108.9	354.6	126.7	60.3	261.4	178.8	64.5	1,160.4
Lb/hr	200	125	647	692	580	385	598	644	954	643
1963 Summary										
50-59										
Pounds			2,700		3,800		0			6,500
Hours			6.0		12.0		1.0			19.0
Lb/hr			450		317		0			342
60-69										
Pounds			53,200	12,655	8,480	24,600	21,100		100	120,135
Hours			82.6	16.8	21.0	52.7	53.0		0.9	227.0
Lb/hr			644	753	404	467	398		111	529
70-79										
Pounds			4,500	30,320	29,405	41,539	75,965	36,800	27,175	245,804
Hours			8.3	60.8	56.7	96.4	165.0	60.0	59.5	506.7
Lb/hr			542	499	519	431	460	613	457	485
80-89										
Pounds					2,125	4,510	21,545	3,270	3,105	34,555
Hours					6.3	18.9	44.2	7.0	10.5	86.9
Lb/hr					337	239	487	467	296	398
90-99										
Pounds									50	50
Hours									2.0	2.0
Lb/hr									25	25
Total										
Pounds			60,400	42,975	43,810	70,649	118,610	40,170	30,430	407,044
Hours			96.9	77.6	96.0	168.0	263.2	67.0	72.9	841.6
Lb/hr			623	554	456	421	451	600	417	484

Table 11. (Cont'd)

Depth (fms)	Month						Total
	May	June	July	August	Sept.	Oct.	
1964 Summary							
60-69							
Pounds				100	3,100	18,400	21,600
Hours				4.3	6.3	30.4	41.0
Lb/hr				23	492	605	527
70-79							
Pounds	22,840	42,400	27,650	75,650	25,350	20,100	213,990
Hours	47.3	82.8	60.2	121.3	47.5	45.6	404.7
Lb/hr	483	512	459	624	534	441	529
80-89							
Pounds	4,050	2,800	300				7,150
Hours	9.3	10.0	2.0				21.3
Lb/hr	435	280	150				336
Total							
Pounds	26,890	45,200	27,950	75,750	28,450	38,500	242,740
Hours	56.6	92.8	62.2	125.6	53.8	76.0	467.0
Lb/hr	475	487	449	603	529	507	520
1965 Summary							
60-69							
Pounds						200	200
Hours						2.0	2.0
Lb/hr						100	100
70-79							
Pounds			3,000			26,900	29,900
Hours			8.5			35.9	44.4
Lb/hr			353			749	673
Total							
Pounds			3,000			27,100	30,100
Hours			8.5			37.9	46.4
Lb/hr			353			715	649

Table 11. (Cont'd)

Depth (Fms)	Month			Total
	May	June	July	
1966 Summary				
60-69				
Pounds		2,700	9,200	11,900
Hours		6.5	15.8	22.3
Lb/hr		415	582	534
70-79				
Pounds		19,500	9,000	28,500
Hours		45.3	26.2	71.5
Lb/hr		430	344	399
80-89				
Pounds	3,850		500	4,350
Hours	7.5		2.0	9.5
Lb/hr	513		250	458
Total				
Pounds	3,850	22,200	18,700	44,750
Hours	7.5	51.8	44.0	103.3
Lb/hr	513	429	425	433