SHELLFISH INVESTIGATION

INFORMATION REPORT 70-8

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October 1971

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INTRODUCTION

Since 1962, persons desiring to harvest intertidal nonfood invertebrates in permit areas or in excess of personal-use bag limits have been required to obtain a collecting permit from the Fish Commission and report the number of animals and areas where taken. This report summarizes collecting activities and trends for 1969.

RESULTS

The Fish Commission issued 208 permits in 1969, an increase of 19.5% over 1968, but only 179 reports were filed. The reported harvest of intertidal invertebrates decreased 39% from 217,000 animals in 1968 to 131,000 in 1969 (Tables 1 and 2).

Table 1. Summary of Intertidal, Nonfood Invertebrate Catch Data from the Oregon Coast, 1969

	Number	Per Cent
Scientific and educational permits	201	97
Commercial permits	7	3
Total	208	
Number of collecting reports returned	179	86
Number used	137	77
Number unused	42	23
Scientific and educational harvest	13,339	10
Commercial harvest	117,957	90
Total	131,296	

Table 2. Intertidal Nonfood Invertebrates Taken by Permit Holders Along the Oregon Coast from January 1 to December 31, 1969

Animal Group	Scientific & Educational Catch			Commercial Catch			Total Catch		
		% of Total Sci. & Ed. Catch			% of Total Comm. Catch			% of Total Combined Catch	
	No.	By Subdivision	By Phylum	No.	By Subdivision	By Phylum	No.	By Subdivision	By Phylum
Coelenterata									
Cl. Hydrozoa	103	0.8	4.6	-	-	-	103	0.1	0.5
Cl. Anthozoa	510	3.8		-	-	-	510	0.4	
Annelida									
Cl. Polychaeta	1,509	11.3	11.3	86,200	73.1	73.1	87,709	66.8	66.8
Arthropoda									
Cl. Cirripedia	1,262	9.5		-	-		1,262	1.0	
Cl. Malacostraca									
Subcl. Peracarida	418	3.1		-	-		418	0.3	
Subcl. Eucarida			30.9			11.4			13.4
Tribe: *Anomura*	1,419	10.6		11,769	10.0		13,188	10.0	
Tribe: *Brachyura*	1,021	7.7		1,702	1.4		2,723	2.1	
Mollusca									
Cl. Amphineura	730	5.5	24.0	2,696	2.3	2.3	3,426	2.6	4.5
Cl. Gastropoda	2,472	18.5		-	-		2,472	1.9	
Echinodermata									
Cl. Asteroidea	1,037	7.8	26.3	11,848	10.0	13.2	12,885	9.8	14.8
Cl. Echinoidea	2,220	16.6		3,742	3.2		5,962	4.5	
Cl. Ophiuroidea	111	0.8		-	-		111	0.8	
Cl. Holothuroidea	139	1.0		-	-		139	1.1	
Miscellaneous	388	2.9	2.9	-	-	-	388	0.3	0.3
Totals	13,339	100.0	100.0	117,957	100.0	100.0	131,296	100.0	100.0

As in 1968, a polychaete tube worm, *Eudistylia*, dominated the catch statistics. However, the harvest of Annelids in general decreased 49%. Commercial collectors sell *Eudistylia* for fishing bait.

Tube worms, sponges, hydroids, and others are difficult and impractical to count accurately. A separate analysis, therefore, was made using certain index species that are easy to count that reflect collecting trends.

Table 3 lists the index animals and numbers collected by commercial, scientific, and educational interests. The harvest of molluscs increased 43.2% while all other phyla experienced less collecting pressure. Scientific and educational collecting of amphineurans and gastropods explains the increase in molluscan collecting. Overall, the 1969 harvest of index animals was similar to that of 1968.

Table 4 shows the collecting intensity along the coast. Yaquina Head was the preferred permit area with Boiler Bay and Sunset Bay-Cape Arago next in order. The central coast was the preferred open area (Table 5).

Table 3. Selected Groups of Intertidal Nonfood Invertebrates Taken by Permit Holders Along the Oregon Coast from January 1 to December 31, 1969

Animal Group	Scientific & Educational Catch				Commercial Catch				Total Catch			
		% of Total Sci. & Ed. Catch				% of Total Comm. Catch				% of Total Combined Catch		
	No.	By Subdivision	By Phylum	% Change From 1968	No.	By Subdivision	By Phylum	% Change From 1968	No.	By Subdivision	By Phylum	% Change From 1968
Coelenterata												
Cl. Anthozoa	510	5.3	5.3	-2.9	-	-	-	0.0	510	1.2	1.2	-2.0
Arthropoda												
Cl. Malacostraca												
Tribe: *Anomura*	1,419	14.7		-10.6	11,769	37.0		+135.4	13,188	31.8		+100.5
Tribe: *Brachyura*	1,021	10.6	25.3	-20.9	1,702	5.4	42.4	-80.6	2,723	6.6	38.4	-73.0
Mollusca												
Cl. Amphineura	730	7.6		-26.6	2,696	8.5		+115.2	3,426	3.3		+52.5
Cl. Gastropoda	2,472	25.6	33.2	+36.2	-	-	8.5	-100.0	2,472	6.0	14.3	+32.0
Echinodermata												
Cl. Asteroidea	1,037	10.7		-26.1	11,848	37.3		-11.0	12,885	31.1		-12.4
Cl. Echinoidea	2,220	23.0		+4.8	3,742	11.8		+17.4	5,962	14.4		+12.4
Cl. Ophiuroidea	111	1.1	36.2	-7.5	-	-	49.1	0.0	111	0.3	46.1	-7.5
Cl. Holothuroidea	139	1.4		+43.3	-	-		0.0	139	0.3		+43.3
Totals	9,659	100.0	100.0	-2.9	31,757	100.0	100.0	+0.5	41,416	100.0	100.0	-0.3

Table 4. Summary of Collecting Intensity by Area Along the Oregon Coast, 1969

Location	Permittees Collecting in Area	Per Cent of Total
Yaquina Head	47	29.2
Boiler Bay	31	19.3
Sunset Bay - Cape Arago	30	18.6
Neptune State Park	6	3.7
Harris Beach Permit Area	2	1.2
Depoe Bay Permit Area	1	0.6
Central Coast1/	26	16.2
South Coast2/	12	7.5
North Coast3/	6	3.7
Total	161	100.0

1/ *Central Coast: Tillamook Bay to Coos Bay.*

2/ *South Coast: Coos Bay to California border.*

3/ *North Coast: Columbia River to Tillamook Bay.*

Table 5. Number of Animals Collected by Area Along the Oregon Coast, 1969

Location	No. of Animals Harvested		Per Cent of Total	
	Scientific & Educational	Commercial	Scientific & Educational	Commercial
Sunset Bay				
Cape Arago	3,667	-	27.5	-
Yaquina Head	3,394	-	25.4	-
Boiler Bay	2,116	-	15.9	-
Neptune		-		
State Park	180	-	1.4	-
Harris Beach		-		
Permit Area	117	-	0.9	-
Shell Cove				
(Depoe Bay)	12	-	0.01	-
Central Coast1/	2,165	116,457	16.2	98.7
North Coast2/	986	1,500	7.4	1.3
South Coast3/	702	-	5.3	-
Totals	13,339	117,957	100.0	100.0

1/ Central Coast: Tillamook Bay to Coos Bay.

2/ North Coast: Columbia River to Tillamook Bay.

3/ South Coast: Coos Bay to California border.