

HARVEST OF NONFOOD, MARINE INVERTEBRATES

1985

A collecting permit from the Oregon Department of Fish and Wildlife is required to take intertidal nonfood invertebrates from permit areas or in excess of the personal bag limits (10 animals). Upon expiration of a permit, harvesters are required to report kinds and numbers of animals taken by areas.

Collecting reports are analyzed to determine commercial and educational harvest and number of animals taken by taxonomic groups by area. Collecting trends are determined by analyzing index species, harvest and number of collectors.

Results and Discussion

In 1985, 135 marine invertebrate collecting permits were issued. Collecting reports were returned by 64 percent of the permittees. (Table 1).

Table 1. Summary of Nonfood, Marine Invertebrate Collecting Permits Issued, Collecting Reports Returned, and Harvests Reported, 1985.

	Educational		Commercial	
	No.	%	No.	%
permits issued	123		12	
collecting reports returned	78	63	8	67
collecting reports showing a harvest	61	78	5	63
collecting reports showing no harvest	17	22	3	37
animals harvested	13,166		2267 lbs	

Commercial Harvest

Twelve permits were issued in 1985. Only five were actively used to harvest 2267 pounds of animals, most of which came from central coast areas (Table 2). Similar to last year, tubeworms of the EUDISTYLA genus, used for fishing bait, made up 94.7% of the total harvest.

Table 2. Commercial Harvest (pounds) of Nonfood, Marine Invertebrates Harvested along the Oregon Coast, by Area and Taxonomic Group, 1985.

Animal Group	North Coast	Central Coast	South Coast	Total	Percentage
Annelida Marine worms	-	2144	-	2144	94.6
Arthropoda Shore, spider & kelp crabs	-	69	-	69	3.0
Other groups (Gooseneck barnacles)	-	54	-	54	2.4
Total	-	2213	-	2213	
Percentage		100			

Educational Harvest

A harvest of 13,166 animals was taken by 61 collectors. Similar to last year, the miscellaneous species category made up a large part of the harvest (35.2%) due to a large collection of amphipods. Ghost shrimp, and snails and limpets were the next highest categories harvested (Table 3).

The areas of harvest were very similar to last year, with most of the harvest (58.8%) coming from the open areas of the central coast. The number of animals collected from within all the permit areas except Sunset Bay-Cape Arago was up from last year. Yaquina Head continues to have the largest harvest (Table 3) and is the most frequently used area (Table 4).

Table 3. Nonfood Marine Invertebrates Harvested By Educational Collectors Along The Oregon Coast, By Area And Taxonomic Group, 1985

Animal Group	Haystack Rock	Boiler Bay	Shell Cove (Depoe Bay)	Yaquina Head	Neptune State Park	Sunset Bay-Cape Arago	Harris Beach	North Coast(1)	Central Coast(2)	South Coast(3)	Total	Percentage
Colelenterata												
Sea anemones		10		61	4	17		30	18	2	142	1.08
Annelida												
Marine worms		13		36		4		1	144	1000	1198	9.10
Arthropoda												
Hermit & porcelain crabs		44		140	2	51		12	51		300	2.28
Ghost & mud shrimp				5					1910	10	1925	14.62
Shore, spider & keip crabs		14		101		73		52	15		255	1.94
Mollusca												
Chitons		22		58	2	22		30	409		543	4.12
Snails, limpets		279		239		68	30	30	548	525	1719	13.06
Sea slugs or nudibranchs		18		44		7		8	116	1200	1393	10.58
Echinodermata												
Sea stars or star fish		26		62		20		16	13		137	1.04
Sea urchins		153		411		162		26	7	25	784	5.95
Sand dollars										100	100	.76
Brittle stars		2		3				10	4		19	.14
Sea cucumbers		5		6				3	6		20	.15
Other groups		1		49		65			4495	21	4631	35.17
Total	0	587	0	1,215	8	489	30	218	7,736	2,883	13,166	
Percentage	0.0	4.5	0.0	9.2	.1	3.7	.2	1.7	58.8	21.9		

(1) Columbia River to Tillamook Bay
 (2) Tillamook Bay to Coos Bay
 (3) Coos Bay to California border

Table 4. Educational Collecting Intensity by Area, Oregon Coast, 1983.

Location	Permitees Collecting in Area	Percentage
Boiler Bay	11	13.9
Yaquina Head	30	37.8
Neptune State Park	1	1.3
Sunset Bay-Cape Arago	12	15.2
Harris Beach	1	1.3
North Coast		
(Columbia River - Tillamook Bay)	5	6.3
Central Coast		
(Tillamook Bay - Coos Bay)	15	19.0
South Coast		
(Coos Bay - California border)	4	5.1
TOTAL	79	

To get a more accurate indication of collecting trends, a separate analysis of the data was made, eliminating such "annual" species as amphipods and isopods. Most of the chosen index species are of general interest and can be accurately counted. An estimate of the unreported harvest was made by calculating the number of index animals reported per collecting report returned. This value was then applied to the number of permits unreported. This estimated catch is probably high. Past data indicates a larger portion of the permittees that did not return reports also did not collect, as compared to those that filed reports. The harvest of index species by educational collectors was up (84.2%) from last year (Table 5) which was slightly under the ten year average (Figure 1).

Table 5. Selected Groups of Nonfood Marine Invertebrates Harvested By Educational Permit Holders Along the Oregon Coast, 1985.

	Educational Catch Number	Percentage
Coelenterata		
Sea anemones	142	2.7
Arthropoda		
Hermit & porcelain crabs	300	5.6
Shore, spider & kelp crabs	255	4.8
Mollusca		
Chitons	543	10.2
Snails, limpets	1719	32.4
Sea slugs	1393	26.2
Echinodermata		
Sea stars	137	2.6
Sea urchins	784	14.8
Brittle stars	19	.4
Sea cucumbers	20	.4
Subtotal	5,312	
Estimated unreported catch	3,060	
Grand total	8372	
Percentage change from previous year	+84.2	

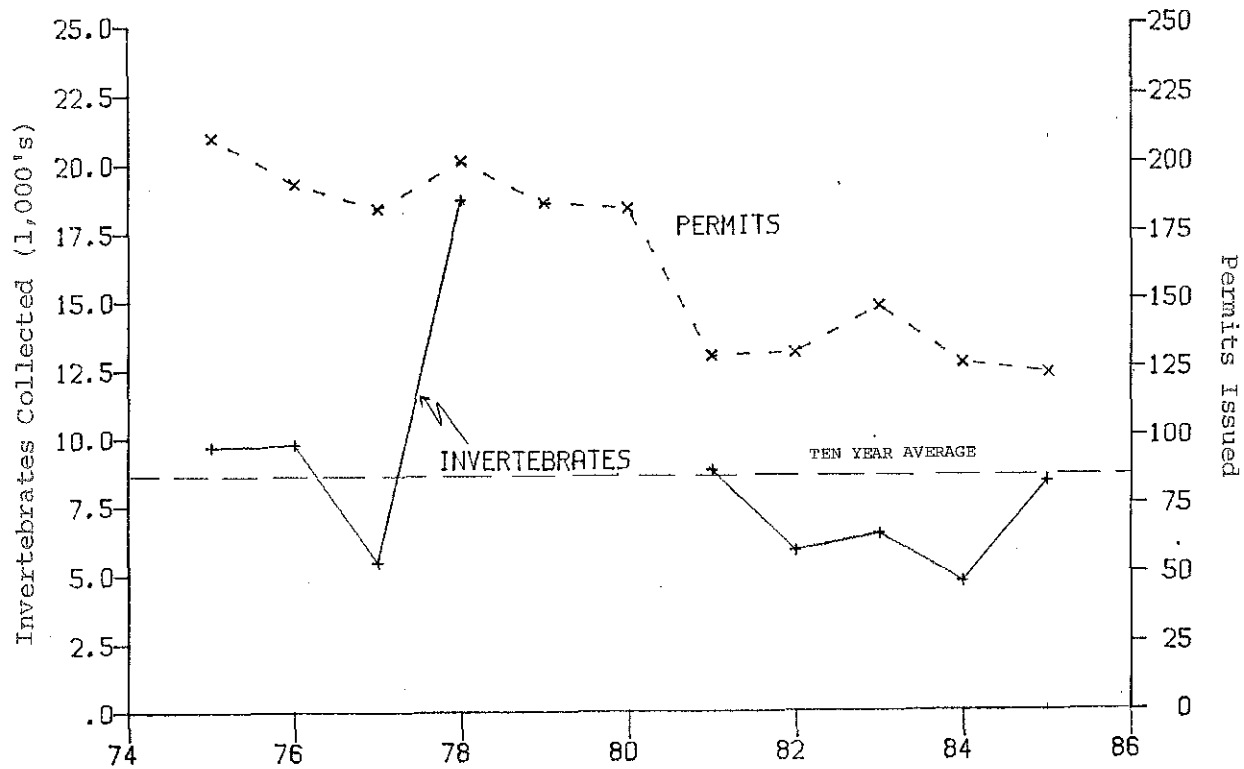


Figure 1. Number of Selected Invertebrates Harvested Along the Oregon Coast by Educational Permit Holders, 1975-1985.

