

HARVEST OF MARINE INVERTEBRATES
1986

A collecting permit from the Oregon Department of Fish and Wildlife is required to take marine 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. A permit is also required for commercial harvest of marine invertebrates and logsheets are required to be returned each month of harvest.

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 1986, 164 marine invertebrate permits were issued. Reports were returned by 60 percent of the permittees. (Table 1).

Table 1. Summary of marine invertebrate permits issued, reports returned, and harvest reported, 1986.

	Educational		Commercial	
	No.	%	No.	%
Permits issued	130	79	34	21
Collecting reports returned	75	58	23	68
Collecting reports showing a harvest	65	87	17	74
Collecting reports showing no harvest	10	13	6	26
Animals harvested	16,025		57,265 lb	

Commercial Harvest

This was the first year red sea urchins have been commercially harvested in Oregon. We issued 18 permits for sea urchins in 1986 (2 in 1984 and 1 in 1985). Eight harvesters landed slightly over 55,000 pounds from the Port Orford area on the south coast (Table 2). Numerous requests for permits and information were responded to and a larger fishery is expected in 1987.

Sixteen additional permits were issued to harvest other marine invertebrates. Six harvesters landed 1445 pounds, of which 53 % was sea anemonies and 37 % was goosneck barnacles. Other animals harvested included sea stars, chitons, kelpworm, and shore crabs.

Table 2. Commercial harvest (pounds) of marine invertebrates harvested along the Oregon coast, by area and taxonomic group, 1986.

Animal Group	North Coast	Central Coast	South Coast	Total	Percentage
Coelenterata					
Sea anemones		773		773	1.3
Annelida					
Marine worms			3	3	<0.1
Arthropoda					
Shore, spider & kelp crabs			48	48	0.1
Mollusca					
Chitons		6		6	<0.1
Echinodermata					
Sea stars		59		59	0.1
Sea urchins			55,820	55,820	97.5
Other groups	556			556	1.0
Total	556	838	51	57,265	
Percentage	1.0	1.5	97.6		

Educational Harvest

A harvest of 16,025 animals was taken by 65 collectors (up from last year). Similar to last year, the miscellaneous species category made up a large part of the harvest (37 %) due to large collections of mussels. Snails and limpets was the next highest category harvested (Table 3).

The areas of harvest were very similar to last year, with most of the harvest (67 %) coming from the open areas of the central coast. The number of animals collected from within all the permit areas was up from last year. Yaquina Head continues to have the largest harvest (Table 3) and is the most frequently used area (Table 4).

To get a more accurate indication of collecting trends, a separate analysis of the data was made, eliminating such "annual" species as amphipods and mussels. 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 more than doubled last year's harvest (Table 5). The 1986 collection of index species was above the ten year average (Figure 1).

Regulations

Effective in 1986, the recreational harvest regulation of turban snails was changed to no limit.

Table 3. Marine Invertebrates Harvested By Educational Collectors Along The Oregon Coast, By Area And Taxonomic Group, 1986.

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		38		73		39	2	23	47	16	238	1.49
Annelida												
Marine worms		8		56		4	1	2	91	44	206	1.29
Arthropoda												
Hermit & porcelain crabs		46		91	5	76	5	4	61		288	1.80
Ghost & mud shrimp				2		1		4	51		58	.36
Shore, spider & kelp crabs		12		114	5	79	2	39	109	10	370	2.31
Mollusca												
Chitons		50		59	3	42	2	14	27	19	216	1.35
Snails, limpets		289		189	4	143	18	18	4143	153	4957	30.93
Sea slugs or nudibranchs		24		97		17	2	23	450	1930	2543	15.87
Echinodermata												
Sea stars or star fish		34		62		34	3	4	47	2	186	1.16
Sea urchins		210		437	1	210		18	59		935	5.83
Sand dollars									20		20	.12
Brittle stars		2		18		11			16		47	.29
Sea cucumbers		4		9		8		2	8	2	33	.21
Other groups		66		85	1	100	1		5562	113	5928	36.99
Total	0	783	0	1,292	19	764	36	151	10,691	2,289	16,025	
Percentage	0.0	4.9	0.0	8.1	.1	4.8	.2	.9	66.7	14.3		

(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, 1986.

Location	Permitees Collecting in Area	Percentage
Boiler Bay	11	14.8
Yaquina Head	26	35.1
Neptune State Park	1	1.4
Sunset Bay-Cape Arago	13	17.6
Harris Beach	1	1.4
North Coast		
(Columbia River - Tillamook Bay)	2	2.7
Central Coast		
(Tillamook Bay - Coos Bay)	15	20.3
South Coast		
(Coos Bay - California border)	5	6.7
TOTAL	74	

Table 5. Selected groups of marine invertebrates harvested by educational permit holders along the Oregon coast, 1986.

	Educational Catch	
	Number	Percentage
Coelenterata		
Sea anemones	238	2.4
Arthropoda		
Hermit & porcelain crabs	288	2.9
Shore, spider & kelp crabs	370	3.8
Mollusca		
Chitons	216	2.2
Snails, limpets	4957	50.5
Sea slugs	2543	25.9
Echinodermata		
Sea stars	184	1.9
Sea urchins	935	9.5
Brittle stars	47	.5
Sea cucumbers	33	.3
Subtotal	9,813	
Estimated unreported catch	7,205	
Grand total	17,018	
Percentage change from previous year	+103.3 %	

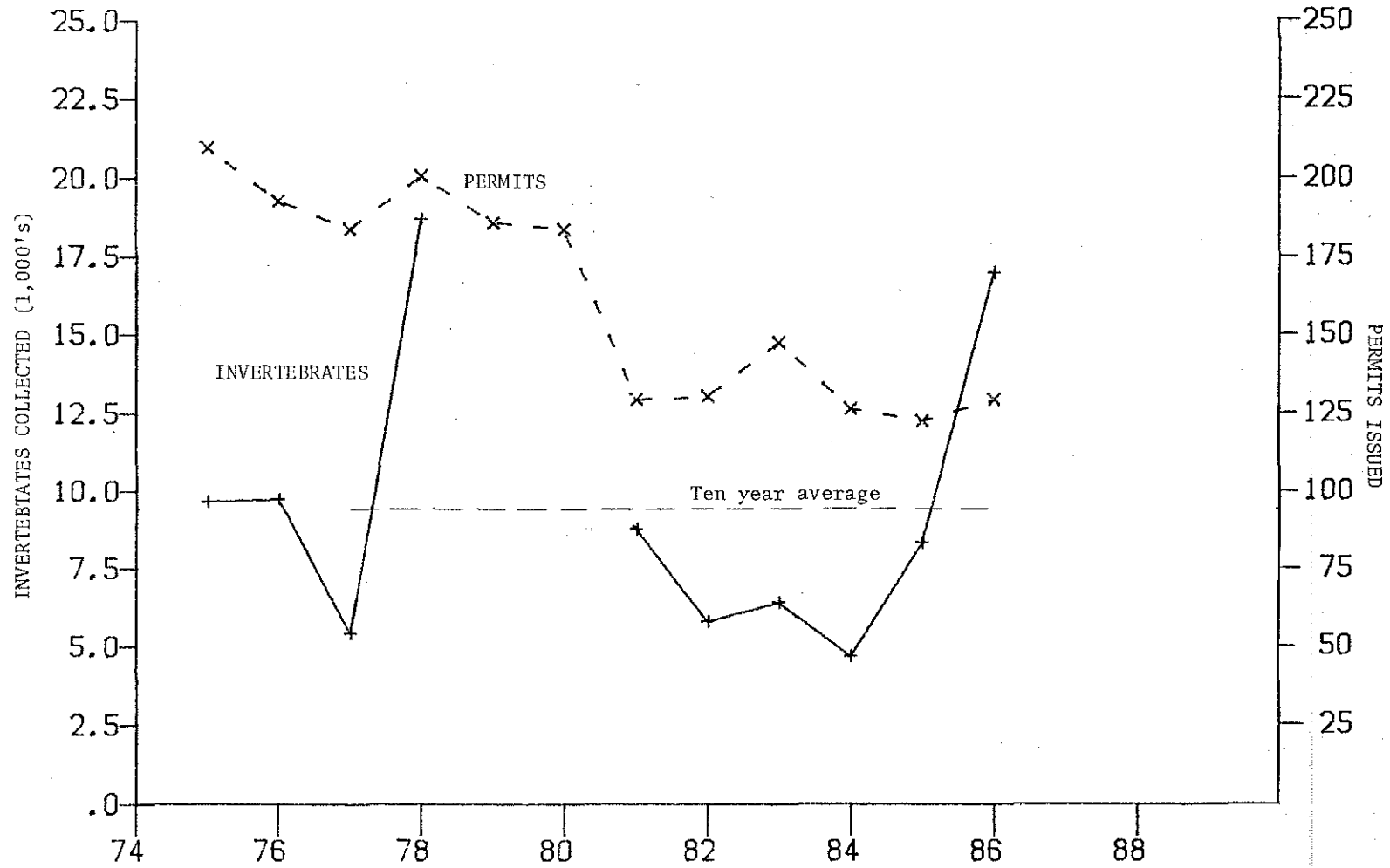


Figure 1. Number of Selected Invertebrates Harvested Along the Oregon Coast by Educational Permit Holders, 1975-1986.

