

Osis

**SHELLFISH INVESTIGATION
INFORMATION REPORT 70-6**

ABANDONED CRAB POTS NEAR CANNON BEACH, OREGON

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INTRODUCTION

The State Police in Astoria informed the Fish Commission on October 12, 1970, that some 100 crab pots were in the ocean in 3-10 fathoms of water near Cannon Beach. This is about 23 miles south of the Columbia River within the 3-mile limit. According to one local crab fisherman, the pots had not been pulled since September 1, 1970, and probably longer. The Fish Commission concurred that the pots should be confiscated. Sgt. Ken Moore, Oregon State Police, contracted a boat and crew to pull the pots. Laimons Osis represented the Fish Commission to obtain biological data on the crabs caught.

RESULTS

Two trips were required to retrieve 117 pots; 15 others were lost when the lines broke, and about 8 were too near the beach to pull. The pots were described as "Alaska type," 48 inches in diameter with at least one escape port each. The pots were stored in a Highway Commission garage in Astoria.

The number of crabs ranged from 0 to 97 (Table 1), and averaged 31.1 per pot for a calculated total of 3,629 crabs. Ninety-one per cent of the crabs sampled were legal males, 6.2% were sublegal, 1.8% were females and 1% were dead. Six of the 34 female crabs were egg bearing. At an average of 2 pounds each, an estimated 7,000 pounds of crabs were trapped in the pots. A few crabs were taken for samples and the remainder were released back into the water.

The condition of the crabs was good; 85% were hard shell and 14.3% were softshell (Table 1). One per cent of the crabs had recently molted,

Table 1. Number of Crabs per Pot, October 14, 1970

	Condition			Females	Dead	Total
	1	2	3			
17		2		1		20
32		2	1		1	36
20		1				21
11		2				13
10		1				11
12		8				20
26			1			27
25		1	1	1		28
16						16
25		6			2	33
9		3				12
9		3	3	8	1	24
10						10
14				8		22
4			2			6
21		6				27
29		3				32
32		3		1		36
30			3	1		34
10		2				12
16		1			7	24
27						27
13			2			15
27			4			31
32			2			34
27			6			33
36		1	1	1		39
32		1	6	1		40
33		1	1	1		36
27		2				29
36		6	1	1		44
10		3				13
31			2			33
33		1				34
11		2			1	14
13		4				17
38		3	1			42
15		4	2			21
37		12	3			52
9		6				15
25		1				26
16		6	4			26
32		4	1			37
28		9				37
47		5	2	4		58
28		2				30
39		6	3	3		51
31		4				35
26		2	2			30
30		5	2	2		39

Table 1. (Continued)

Condition			Females	Dead	Total
1	2	3			
					25
					35
					41
					32
					42
					57
					37
					63
					66
					46
					48
					65
					35
					38
					40
					36
					97
					46
					64
					39
					29
					47
					39
					23
1,167	134	56	33	12	1,402

(test fishing off the Columbia River on November 19, 1970, showed that 82% of the crabs had recently molted).

The average size of the legal male crabs was 172.5 mm. The 1969-70 seasonal average size for the Columbia River area was 174 mm (Table 2). It is noteworthy that few sublegal crabs were in the pots and is evidence that escape ports are effective.

DISCUSSION

Unattended crab pots in the ocean in a fishable condition during a 75-day closed season present a definite resource problem. Crab fishermen cite instances where unattended pots without bait continue to fish and either sand in or wash onto the beach during storms. It is not known how long crabs can survive under these conditions.

Probably a more serious problem in this case is cannibalism. Cannibalism has been observed by shellfish personnel in aquarium studies where freshly shed females were eaten by the males. Had the pots not been pulled it is highly probable that many or most of the crabs would have succumbed to cannibalism. The trapped crabs would have been without food for several weeks and would be hungry. Second, the high percentage of hard-shell crabs on October 14 and 28, and a high percentage of soft shells on November 19, shows that molting has not begun by October 28. The molt would have taken place while the crabs were confined in the pots and a severe mortality would certainly have occurred.

At this writing, the disposition of the case is still pending. The pots had an estimated value of \$20.00 each, but the owner of the gear repurchased it for \$650 or \$5.55 each. The fisherman involved appeared in court December 15, but the case was continued until 1971.

Table 2. Width Frequencies of 257 Crabs Taken from Abandoned Crab Pots October 14, and 28, 1970

Size (mm)	Hard Shell	Soft Shell	Total
151	1		1
2	1	2	3
3		1	1
4	3	1	4
5		1	1
6	4		4
7	3	2	5
8	1	3	4
9	4	1	5
160	3	5	8
1	6	3	9
2	4	1	5
3	9	3	12
4	9	1	10
5	5	2	7
6	4	3	7
7	6	3	9
8	9	2	11
9	6	1	7
170	12	2	14
1	15		15
2	19	3	22
3	6		6
4	7	2	9
5	11		11
6	5	2	7
7	10	1	11
8	18		18
9	5	1	6
180	5	1	6
1	8		8
2	9	1	10
3	4		4
4	2		2
5	4	2	6
6	3		3
7	2		2
8	2		2
9			
190	3		3
1			
2	1		1
206	1		1
Total	207	50	257