

SHELLFISH INVESTIGATION INFORMATION REPORT
1989 RAZOR CLAM FISHERY

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INTRODUCTION

Razor clams from Clatsop Beach (Tillamook Head to Columbia River) were sampled two tides per series from March through September and periodically the rest of the year. Sport and commercial diggers were interviewed to estimate effort, number and age composition of clams dug and harvest area. Beaches south of Tillamook Head were sampled as time permitted. Random wastage and age-length samples were taken and other miscellaneous projects were done.

SPORT FISHERY

Clatsop Beach

The spring and summer harvest was 1,116,000 clams which included 125,000 wasted clams. The average number of clams per digger trip was 11.0 for 90,000 digger trips. Area 5 contributed 47% of the clams and 42% of the effort. Table 1 lists harvest, catch rates, and number of diggers by area.

Table 1. Sport harvest of razor clams and number of diggers by area from Clatsop Beach, March to September 1989.

Area	Miles of beach	# of Diggers	Clams per Digger	# of clams	Wastage	Total
1	3.6	9,290	8.1	74,985	9,458	84,443
2	6.2	14,604	9.3	135,678	17,113	152,791
3	5.0	15,845	9.1	144,498	18,225	162,723
4	1.2	12,791	13.1	167,562	21,134	188,696
5	2.0	37,498	12.5	468,726	59,119	527,845
Total	18.0	90,020	11.0	991,449	125,049	1,116,498

Area 1 - Columbia River South Jetty to Fort Stevens Park Road.

Area 2 - Fort Stevens Park Road to Sunset Beach Road.

Area 3 - Sunset Beach Road to Gearhart Beach Road.

Area 4 - Gearhart Beach Road to Necanicum River.

Area 5 - Necanicum River to Tillamook Head.

The fall fishery produced 102,000 clams of which 11,000 were wasted. Diggers averaged 12.9 clams on 7.050 trips. The fall harvest is included in the annual harvest, Table 5. Total harvest was 65% over the 10 year average.

Clam wastage averaged 11.2% in Areas 4 and 5. Summer and fall random samples showed the 1988 year class was above average in number in Area 5 but spotty in other areas. Age composition of sport-dug clams (Table 2) showed an increase in clams two years and older compared to the ten-year average.

Table 2. Age composition in percent of sport-dug clams from Clastop Beach, 1984-89.

Year of Harvest	Age					
	0	1	2	3	4	5+
1984	46.8	46.7	6.2	0.3	0.0	0.0
1985	13.0	83.7	3.2	0.1	0.0	0.0
1986	52.3	29.0	18.5	0.2	0.0	0.0
1987	14.2	82.2	3.6	0.0	0.0	0.0
1988	5.5	61.5	31.1	1.9	0.0	0.0
1989	28.1	55.3	12.1	3.4	1.0	0.0
10 year average	29.6	57.8	10.9	1.5	0.2	0.0

Many complaints were received on the increased number of diggers on Oregon beaches due to restrictions in Washington. Oregon diggers want a clam license. Driving on clam beds is a problem and has been increasing.

Beaches south of Tillamook Head

Digging was slow on most beaches along the coast. Some clams were taken from Short Sands Beach near Cannon Beach, Newport beaches, and beaches between Whiskey Run and Coos Bay. Bastendorff Beach, which has had little effort in recent years, produced clams in 1989.

COMMERCIAL FISHERY

Nearly 195,000 clams (32,101 pounds) were taken by 228 commercial harvesters. Area 5 produced 65.7% of the poundage but Area 3 produced the largest catches. Catch data by area are listed in Table 3.

Table 3. Commercial catch/effort and pounds landed by area.

	Area					Total
	1	2	3	4	5	
Pounds/hour	3.7	4.6	11.4	3.2	4.5	4.4
Percent of pounds landed	3.2	2.8	9.7	18.7	65.7	100.0

Table 4 shows that many older clams were dug in 1989. The older/larger clams were taken in the spring, but small fall samples indicated that 56% of the population was not of commercial size (3 3/4") resulting in considerable wastage in Area 5.

A price of \$2.80 a pound in the shell attracted many diggers into the fishery. Several diggers made landings without permits and most were cited. A Washington resident was cited for selling clams in Oregon which were dug out of season in Washington.

Commercial diggers promoted a limited entry bill for the razor clam fishery (SB 1156). The bill included a \$100 fee for a commercial clam permit. A January 31 deadline for obtaining a permit and a 3-year suspension of a clam permit if convicted of a clam violation. The bill was discussed in committee, but was tabled due to lack of time.

Table 4. Age composition in percent of commercially dug razor clams, Clatsop Beach 1984-89.

Year of Harvest	Age					
	0	1	2	3	4	5+
1984	93.7	5.1	1.2	0.0	0.0	0.0
1985	11.2	85.8	2.7	0.2	0.1	0.0
1986	10.0	30.0	58.0	2.0	0.0	0.0
1987	0.0	98.4	1.6	0.0	0.0	0.0
1988	15.6	60.0	21.6	2.6	0.2	0.0
1989	6.5	87.1	2.2	3.7	0.3	0.2
10-year average	14.2	71.1	12.8	1.7	0.1	0.1

MISCELLANEOUS PROJECTS

Razor clam gills were collected and sent to OSU for NIX analysis. Levels of NIX have increased in Washington but Oregon samples have not been analyzed. A sample of razor clams was dug from Seaside beach for the Washington Dept. of Fisheries for electrophoresis analysis. I am doing another study to see if moisture content is related to NIX levels. Results to date are shown in Figure 1.

Table 5. Annual harvest and effort data for the fishery.

Year	Commercial Fishery		Sport Fishery			Wastage	Total
	# of Diggers	# of Clams	# of Diggers	Clams per Trip	# of Clams		
1955	295	904,000	56,000	22	1,212,000	295,000	2,411,000
1956	253	490,000	60,000	18	1,061,000	295,000	1,846,000
1957	193	336,000	77,000	21	1,646,000	416,000	2,398,000
1958#	221	386,000	89,000	19	1,679,000	218,000	2,283,000
1959	118	179,000	54,000	12	646,000	124,000	949,000
1960	93	154,000	48,000	12	596,000	46,000	796,000
1961	58	80,000	51,000	11	583,000	70,000	733,000
1962	79	102,000	56,000	16	892,000	105,000	1,099,000
1963	77	107,000	55,000	13	713,000	70,000	890,000
1964	125	125,000	71,000	16	7,098,000	264,000	1,487,000
1965	213	399,000	76,000	15	1,134,000	186,000	1,719,000
1966	217	282,000	78,000	14	1,052,000	434,000	1,768,000
1967	297	494,000	74,000	20	1,472,000	195,000	2,161,000
1968	340	361,000	64,000	13	831,000	162,000	1,354,000
1969	185	111,000	59,000	14	851,000	155,000	1,117,000
1970	79	61,000	56,000	13	751,000	125,000	901,000
1971	134	123,000	77,000	13	968,000	213,000	1,304,000
1972	76	49,000	69,000	9	636,000	139,000	824,000
1973#	111	89,000	76,000	10	725,000	159,000	973,000
1974	58	32,000	44,000		347,000	5,000	384,000
1975	146	171,000	75,000	10	785,000	157,000	1,113,000
1976	391	717,000	119,000	12	1,431,000	63,000	2,211,000
1977#	269	143,000	51,000	10	499,000	33,000	675,000
1978	253	205,000	72,000	12	849,000	137,000	1,191,000
1979	236	180,000	90,000	11	958,000	63,000	1,201,000
1980	145	116,000	70,000	11	747,000	143,000	1,006,000
1981	91	128,000	30,000	6	187,000	49,000	364,000
1982	209	165,000	84,000	9	758,000	123,000	1,046,000
1983#	9	1,000	32,000	3	105,000	12,000	118,000
1984*	34	37,000	23,000	15	341,000	15,000	393,000
1985*	340	303,000	94,000	10	984,000	147,000	1,434,000
1986*	51	18,000	46,000	5	260,000	33,000	311,000
1987*	173	236,000	68,000	15	1,010,000	83,000	1,329,000
1988*	178	161,000	84,000	11	1,016,000	168,000	1,345,000
1989*	228	195,000	97,000	11	1,082,000	136,000	1,413,000
Ten-year average							855,000

* Fall fishery included
 # Occurrences of El Nino