

OREGON

JUL 11 1983

STATE LIBRARY

SHELLFISH INVESTIGATION
INFORMATION REPORT

1980 Razor Clam Fishery

by

Terry Link

Oregon Department of Fish and Wildlife
Marine Region

March 10, 1981

The 1980 Razor Clam Fishery

Razor clams from Clatsop beach (Tillamook Head - Columbia River) were sampled regularly from March through September and periodically the rest of the year. Sport and commercial diggers were interviewed to obtain catch location and number and age composition of clams dug. Random age-length samples and wastage samples were collected. Data from other beaches south of Tillamook Head were collected as time permitted.

Sport Fishery

A harvest of 890,000 clams including wastage was taken by the sport fishery from Clatsop beach. A calculated 747,000 clams were dug on 70,000 digger trips. This represents a 4.0% decrease in digger trips and 5.7% decrease in number of clams from the 10 year average. The two-mile Seaside beach accounted for 49.8% of the digger trips and 65.8% of the clams dug. Table 1 lists harvest, catch rates and number of diggers by statistical area.

Clam wastage was estimated at 16.1% and although rate was high losses were minimal due to reduced effort in July and September. Age composition of sport dug clams in Table 2 reflects the large 1979 year class that entered the fishery.

A sport digger survey was conducted to determine who was using the clam resource. A sample of 1416 digger trips found that 98.7% were Oregon residents, 7.0% were digging for their first time and 3.0% were digging in Oregon because of the Washington clam license.

Table 1.--Sport Harvest of Razor Clams and Number of Diggers by Area from Clatsop Beach, March to September, 1980.

Area	Miles of Beach	No. of Digger Trips	Clams Dug/ Digger Trip	No. of Clams Dug	No. of Clams Wasted	Harvest Total
1	3.6	8,949	5.9	52,973	10,165	63,138
2	6.2	15,107	6.1	92,016	17,657	109,673
3	5.0	6,323	5.7	36,086	6,925	43,011
4	1.2	5,004	14.8	74,278	14,254	88,532
5	2.0	35,067	14.0	491,474	94,311	585,785
Total	18.0	70,450	10.6*	746,827	143,312	890,139

Area 1 = Columbia River to Ft. Stevens Park Rd.
 2 = Ft. Stevens Park Rd. to Sunset Beach Rd.
 3 = Sunset Beach Rd. to Gearhart Beach Rd.
 4 = Gearhart Beach Rd. to Necanicum River
 5 = Necanicum River to Tillamook Head (Seaside)

* weighted mean

Table 2.--Age Composition, in Percent, of Sport Dug Razor Clams from Clatsop Beach, 1975-1980.

Year of Harvest	0	1	2	3	4	5+
1975	24.0	46.0	17.6	9.8	2.3	0.3
1976	14.6	78.9	2.8	2.0	1.3	0.4
1977	37.5	15.7	33.5	6.6	3.8	2.9
1978	28.7	61.8	4.0	3.5	1.3	0.7
1979	12.3	75.3	11.1	0.9	0.3	0.1
1980	44.6	32.0	16.7	6.1	0.5	0.1
10 Year Average	23.0	57.5	13.4	4.3	1.4	0.4

Commercial Fishery

A harvest of 20,291 pounds (116,000 clams) were dug by 145 diggers. Statistical area 5 accounted for 76% of the total pounds landed. The age composition in Table 3 does not include data of the 10,061 pounds of clams landed in the fall fishery which were predominately first year clams.

The commercial fishery took 11.5% of the total clam harvest from Clatsop beach. A sample of 67 commercial diggers leaving the beach indicated that 20.3% of the poundage dug was not sold to a licensed wholesale buyer, amounting to a total of 29,663 clams.

Due to the number of inexperienced diggers participating in the fishery, wastage is now a problem and should be considered in the future. The lack of replacing or replacing of damaged sublegal clams is creating wastage as well as sport-commercial social problems.

Razor Clam Production South of Tillamook Head

Data were obtained from 14 beaches south of Tillamook Head as time permitted. Table 4 lists the beaches and pertinent catch data. Most beaches south of Tillamook have better than average digging with 1+ and 2+ age clams making up most of the catch. Extra work has been involved in making the public aware that good digging is present on some southern beaches.

Breakwater extension on South Slough, Coos Bay was examined - final placement missed clam bed and a small beach is developing westward of

extension. Disposition of spit northwest of extension is still questionable but at present is stable and diggable.

Harvest Summary

Digging was hindered by an early annual beach cycle and complicated by eruptions of Mount St. Helens which left flood debris and floating pumice and sediments on the beach. Often digging was hampered by heavy plankton blooms reducing visibility in water and layering beaches obliterating clam shows.

The large 1979 set dominate the summer and fall fishery on Seaside and Gearhart beach. The set was high on the beach in many places which provided good dry digging.

Table 3.--Age Composition in Percent of Commercially Dug Clams from Clatsop Beach, 1975-1980.

Year of Harvest	0	1	2	3	4	5
1975	0.4	50.8	14.7	20.6	11.9	1.6
1976	8.7	87.4	2.6	0.9	0.4	0.0
1977	1.6	8.7	60.0	12.0	10.6	7.1
1978	0.8	70.8	10.7	12.6	3.4	1.7
1979	0.0	61.9	26.1	7.1	4.0	0.9
1980	0.7	90.9	7.5	0.7	0.0	0.2
10 Year Average	1.8	50.8	28.4	12.1	5.7	1.2

Table 4.--Razor Clam Data from Beaches South of Tillamook Head, 1980.

Area Sampled	No. of Diggers	No. of Clams	Clams/Digger	Age Composition in Percent					
				0	1	2	3	4	5+
Indian Beach*	0	-	-	4.1	16.3	34.7	44.9		
Crescent Beach**	0	-	-				100.0		
Chapman Point	8	0	-						
Silver Point	12	96	8.0		2.4	76.2	21.4		
Falcon Cove+	28	336	12.0			20.8	70.9	8.3	
Short Sands**	0	-	-	34.6	32.7	30.8	1.9		
Bay Ocean+	11	122	11.1						
North Beach (Newport)	-	-	-	8.3	54.5	21.5	9.1	3.3	3.3
South Beach (Newport)	14	232	16.6	1.8	17.6	9.6	24.6	41.6	4.8
Bastendorf (Coos Bay)+	17	0							
South Slough Spit (Coos Bay)	10	166	16.6	29.9	38.2	11.3	9.3	10.3	1.0
Whisky Run *	20	196	9.8	23.5	33.8	32.4	4.4	5.9	
Bally Beach *	1	0							
Myer Creek (Gold Beach)	49	778	15.9	18.2	29.6	15.1	16.5	11.8	8.8

* Biologist sample only

+ One day sample

Table 5.--Annual Harvest and Effort Data for the Sport and Commercial Fishery*

Year	Commercial		Number of Diggers	Clams per Digger Trip	Number of Clams Dug	Wastage	Total Harvest
	Number of Diggers	Number of Clams Dug					
1955	295	904,000	56,000	21.6	1,212,000	295,000	2,411,000
1956	253	490,000	60,000	17.7	1,061,000	295,000	1,846,000
1957	193	336,000	77,000	21.4	1,646,000	416,000	2,398,000
1958	221	386,000	89,000	18.9	1,679,000	218,000	2,283,000
1959	118	179,000	54,000	12.0	646,000	124,000	949,000
1960	93	154,000	48,000	12.4	596,000	46,000	796,000
1961	58	80,000	51,000	11.4	583,000	70,000	733,000
1962	79	102,000	56,000	15.9	892,000	105,000	1,099,000
1963	77	107,000	55,000	13.0	713,000	70,000	890,000
1964	125	125,000	71,000	15.5	1,098,000	264,000	1,487,000
1965	213	399,000	76,000	14.9	1,134,000	186,000	1,719,000
1966	217	282,000	78,000	13.6	1,052,000	434,000	1,768,000
1967	297	494,000	74,000	19.9	1,472,000	195,000	2,161,000
1968	340	361,000	64,000	13.0	831,000	162,000	1,354,000
1969	185	111,000	59,000	14.4	851,000	155,000	1,117,000
1970	79	61,000	56,000	12.8	751,000	125,000	901,000
1971	134	123,000	77,000	12.6	968,000	213,000	1,304,000
1972	76	49,000	69,000	9.2	636,000	139,000	824,000
1973	111	89,000	76,000	9.5	725,000	159,000	973,000
1974	58	32,000	44,000	7.9	347,000	5,000	384,000
1975	146	171,000	75,000	10.5	785,000	157,000	1,113,000
1976	391	717,000	119,000	12.0	1,431,000	63,000	2,211,000
1977	269	143,000	51,000	9.6	499,000	33,000	675,000
1978	253	205,000	72,000	11.8	849,000	137,000	1,191,000
1979	236	180,000	90,000	10.7	958,000	63,000	1,201,000
1980	145	116,000	70,000	10.6	747,000	143,000	1,006,000