

Kruse 9/6

THE 1964 CLATSOP BEACH PERSONAL-USE RAZOR CLAM FISHERY

INTRODUCTION

The personal-use razor clam fishery was sampled from April to September 1964, for number and age composition of clams dug and number and distribution of diggers. A wastage estimate was also determined.

PERSONAL-USE FISHERY

The 1964 sampling program was similar to that of past years with sampling being done every other day during each tide series from one hour before to one hour after low water.

Table 1. Personal-Use Harvest of Razor Clams by Area from Clatsop Beaches, April-September 1964.

Area	Miles of Beach	Number of Diggers	Average No. Clams Per Digger	No. Clams Dug	No. Clams Wasted
I-IV ^{1/}	16	43,410	15.7	682,397	84,899
V ^{2/}	2	27,193	14.9	415,197	157,699
TOTAL	18	70,603	15.5	1,097,594	242,598

^{1/} Necanicum River to Columbia River (North Beach).

^{2/} Tillamook Head to Necanicum River (Seaside).

Diggers and Distribution

Digging intensity in 1964 increased to 70,603 diggers (Table 1 and Figure 1), 29% over that of 1963. The greatest number of diggers (61%) dug on the 16-mile North Beach which reversed the trend of last year. Although 18 miles of beach were available, about 90% of the digging took place in about 9 miles. Large crowds of diggers congregated from the Peter Iredale north, near Gearhart, and at Seaside. The increased effort was probably due in part to publicity by the news media about the low tides of 1964.

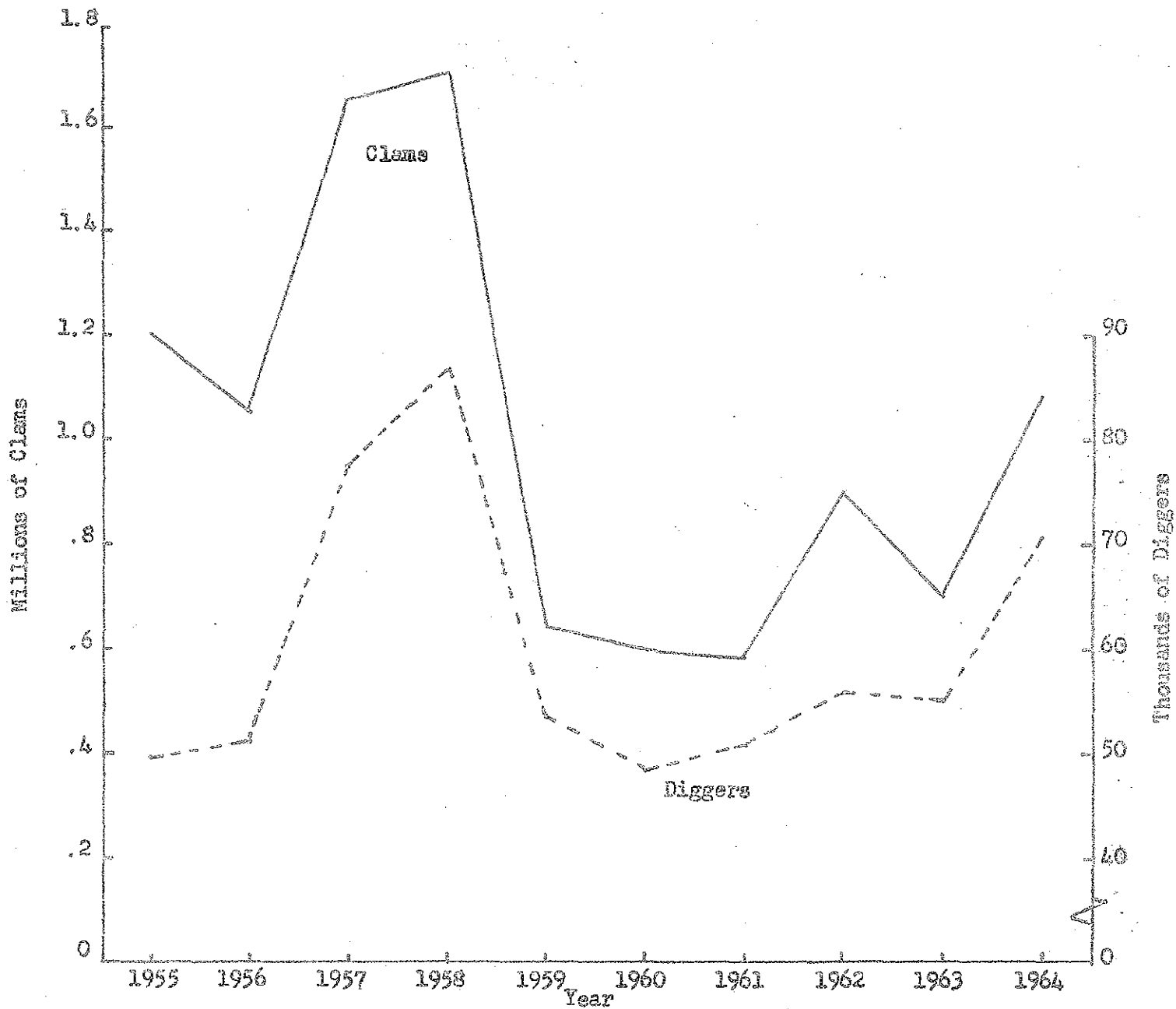


Figure 1. Personal-Use Harvest of Razor Clams and Number of Diggers on Clatsop Beaches, 1955-64.

Harvest

The calculated sport harvest for 1964 was 1,097,000 clams, the first million plus year since 1958. The large catch is not necessarily encouraging because 58% or 635,000 clams were 0's (Figures 2 and 3). The high take of 0's is due in part to increased digging pressure, good availability of the clam beds, and to an increase in clam stocks (the catch-per-unit of effort increased from 11.3 to 15.5). Also of note is the early occurrence of 0's in the catch. By the second series in June, 60% of the catch was 0's (Figure 4). A closure from July 15 to August 31 could have theoretically reduced the harvest of 0's by 34% or 219,000 clams (Figure 5).

WASTAGE

A wastage estimate was determined by feeling in shovel holes where an attempt had been made to dig a clam. A sample of 50 to 200 holes was taken in each sub-area of beach during each tide series. The total number of clams wasted was calculated by applying the percentage of clams found in these samples to the calculated sport harvest for the appropriate time period and area. The wastage estimate is minimal at best.

An estimated 242,568 clams were wasted in 1964, which represents 22% of the sport catch (Figure 6). This is 261% greater than that of 1963 and 87% greater than the 1957-63 average. The per cent wastage by tide series is shown in Figure 7.

Closure of the beach from July 15 to August 31 could have theoretically reduced wastage by 33% or some 75,000 clams (Figure 8).

Therefore, it would seem desirable that Clatsop beaches from the Columbia River to Tillamook Head be closed to razor clam digging from July 15 to August 31 each year to reduce wastage.

Darrel Demory, Aquatic Biologist
Oregon Fish Commission Research Division

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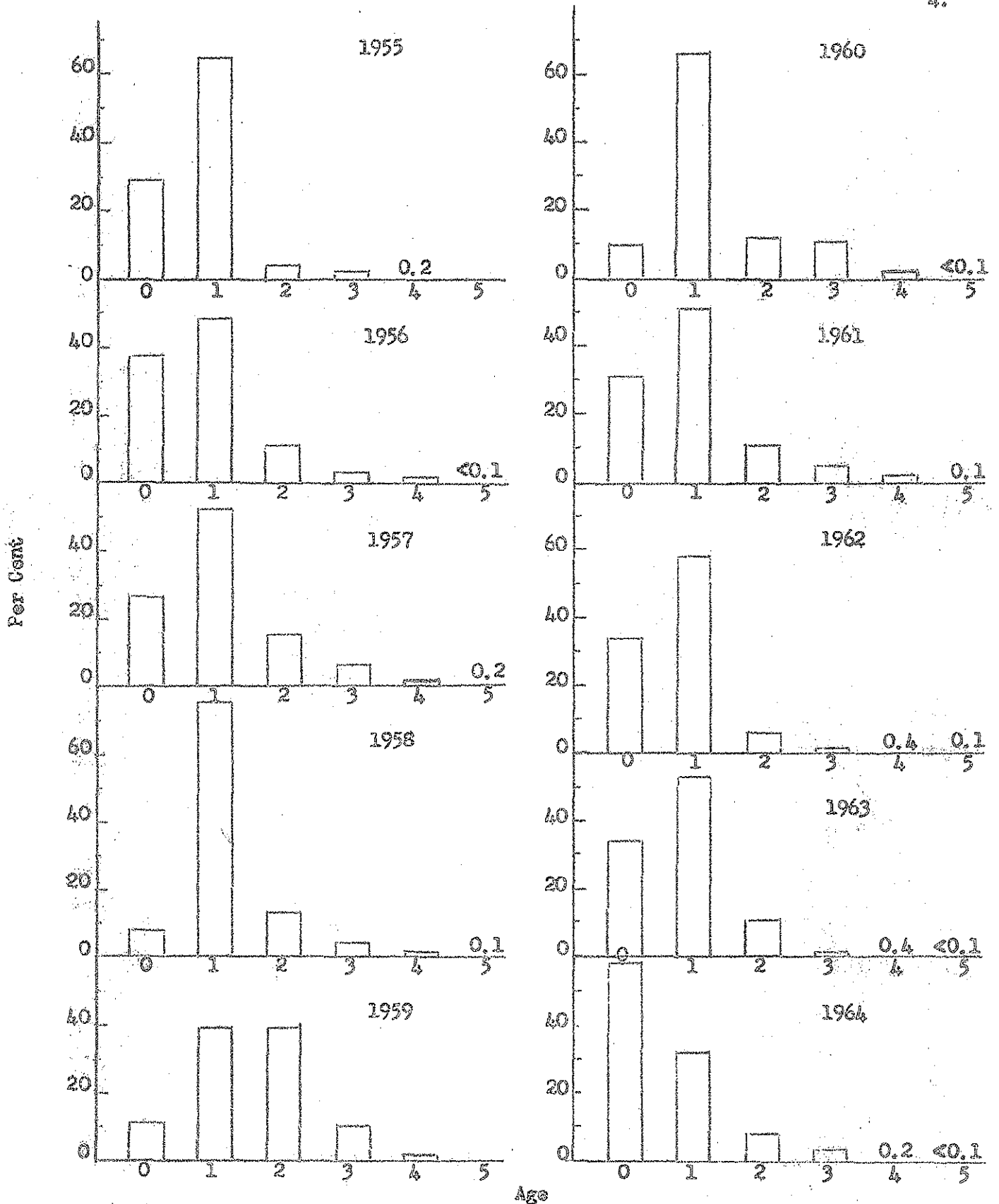


Figure 2. Per Cent Age Composition of Sport Harvested Razor Clams, 1955-64.

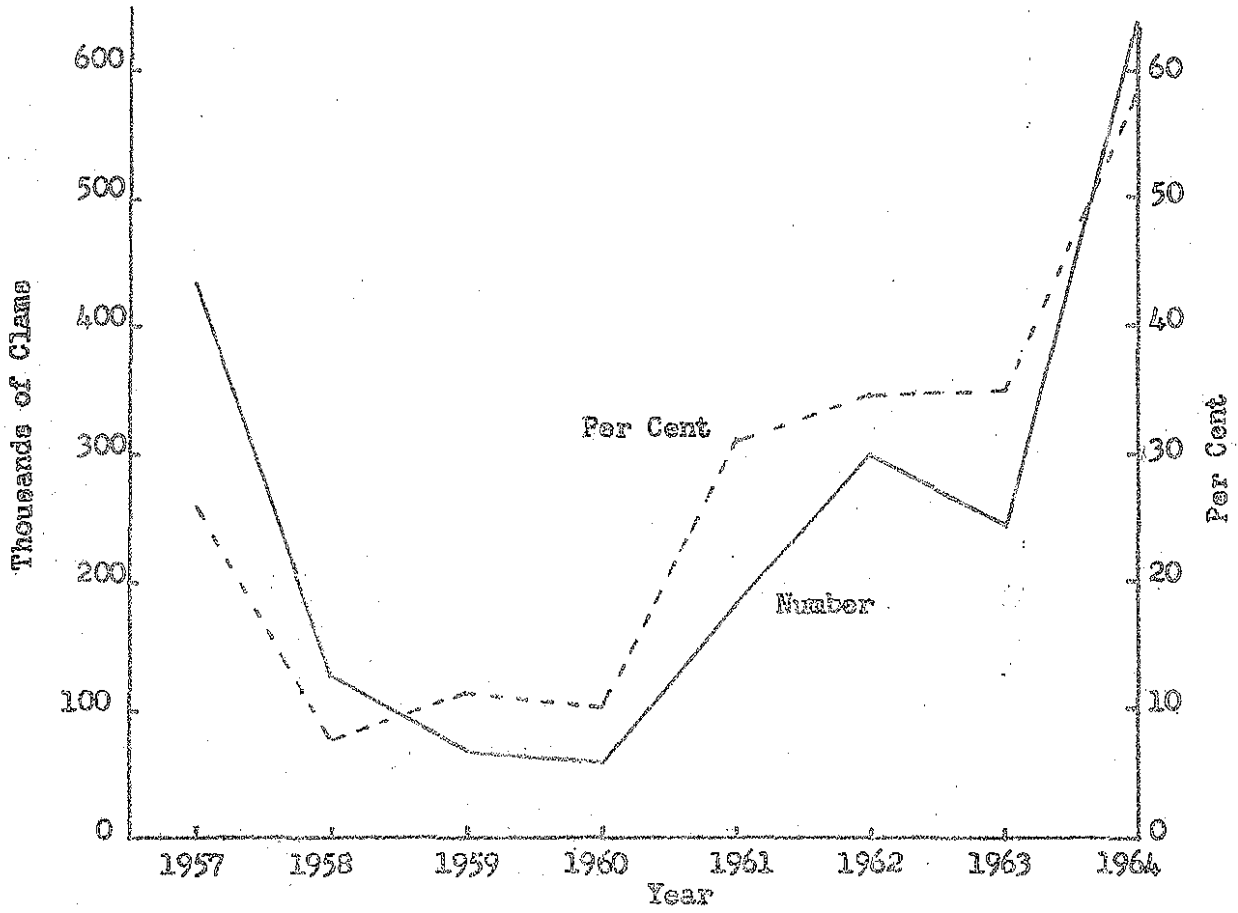


Figure 3. Personal-Use Harvest of First Year Razor Clams from Clatsop Reaches, 1957-64.

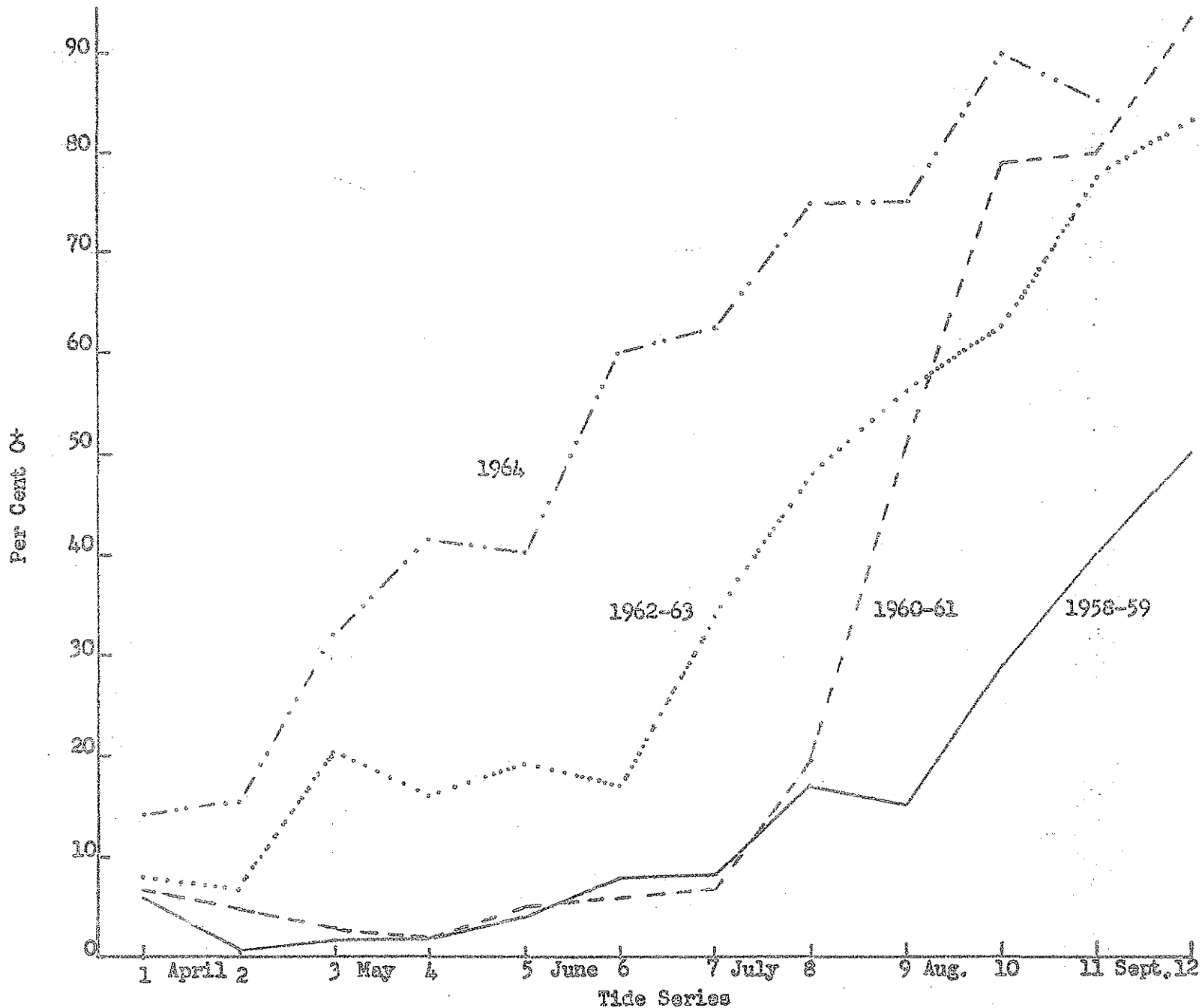


Figure 4. Two-Year Averages of Personal-Use Harvest of O+ Razor Clams in Per Cent by Tide Series, Clatsop Beaches, April to September 1958-1964.

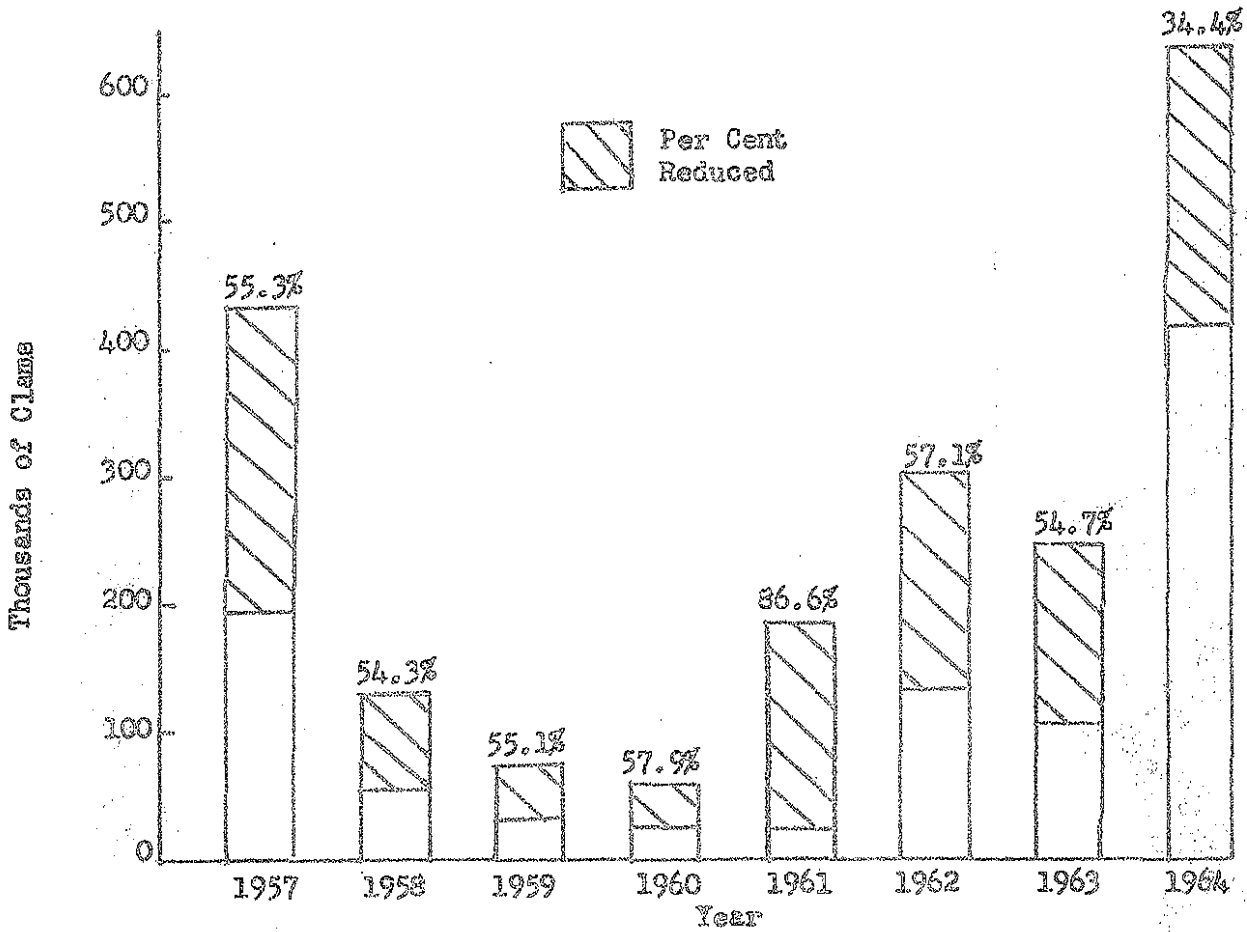


Figure 5. Theoretical Reduction in Harvest of O+ Razor Clams Effected by July 15 to August 31 Beach Closure 1957-1963.

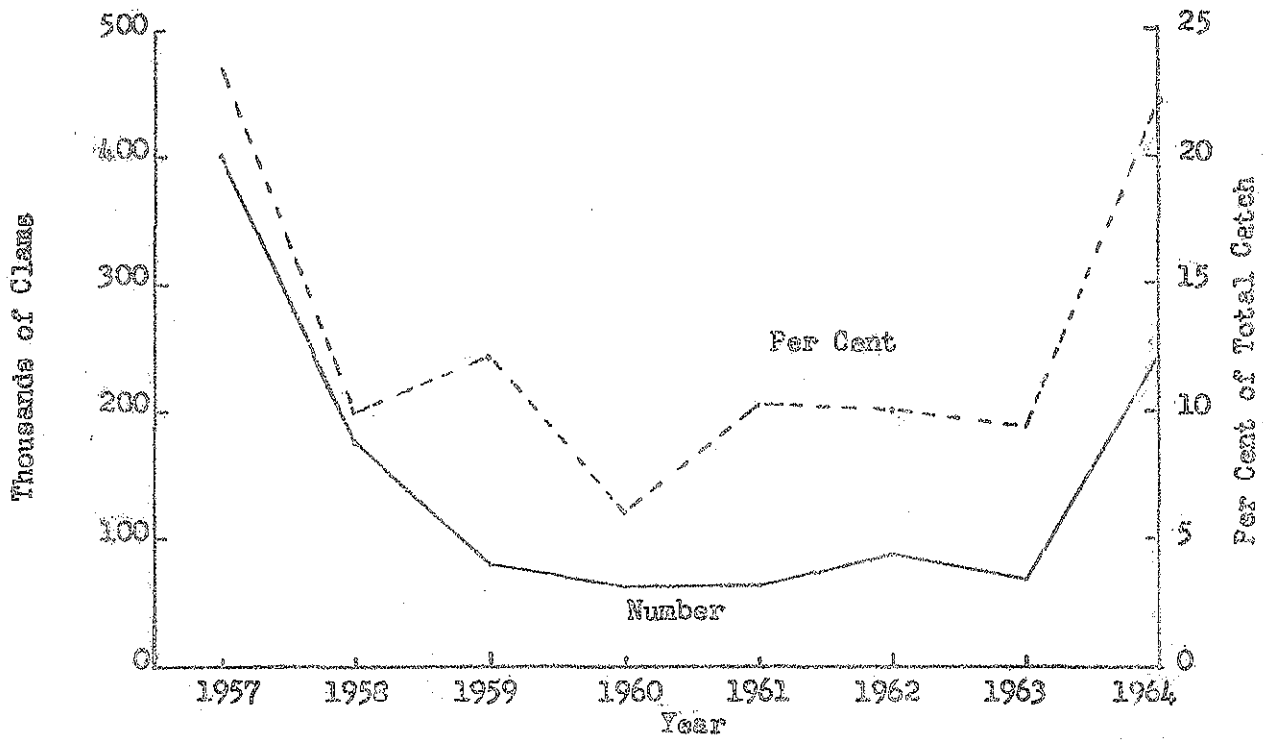


Figure 6. Annual Personal-Use Wastage of Razor Clams from Clatsop Beaches, 1957-1964. (Extrapolated Data Used for 1961 and 1963).

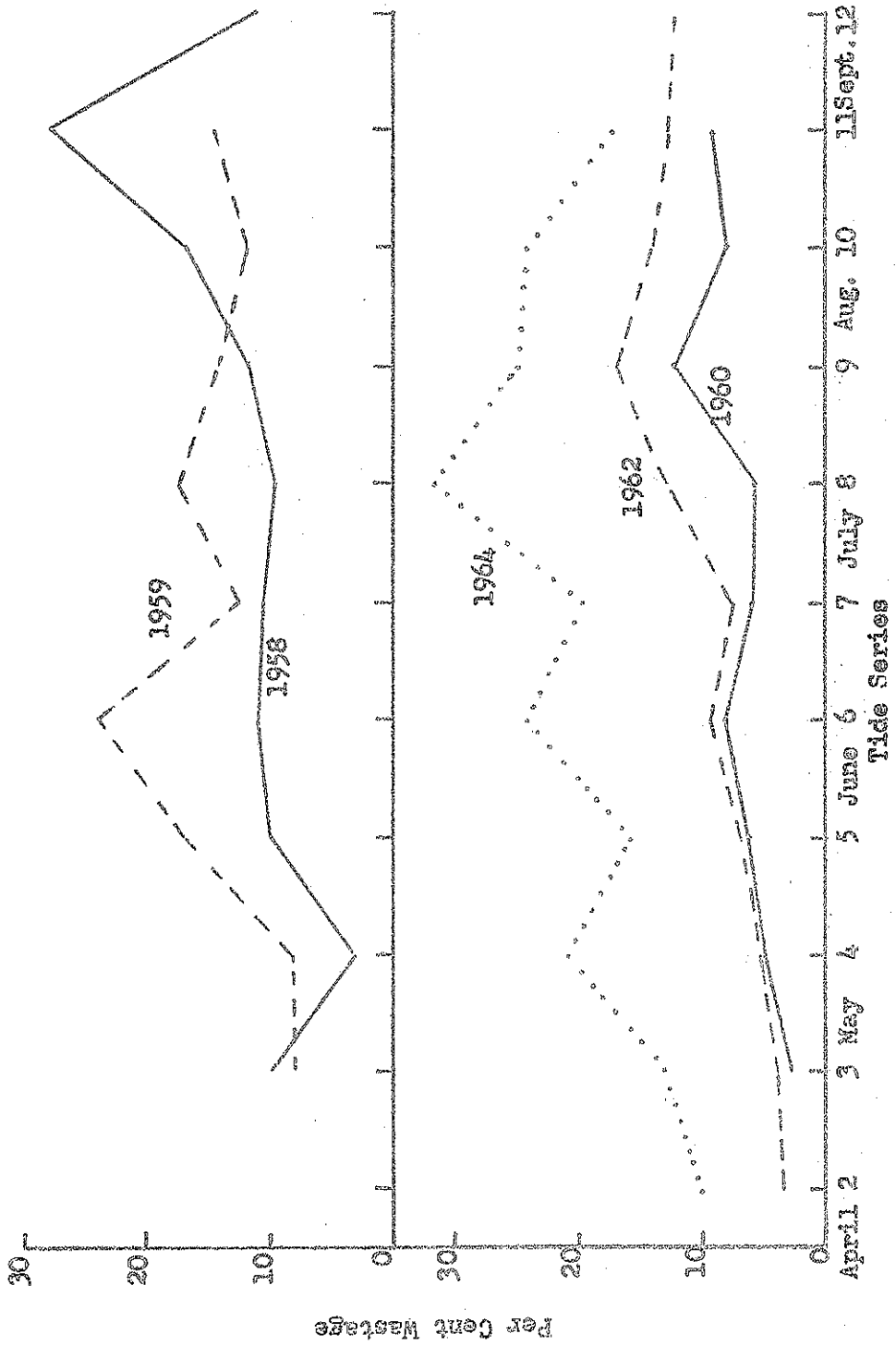


Figure 7. Personal-Use Wastage of Razor Clams by Tide Series, April to September, 1958-60, 1962, 1964.

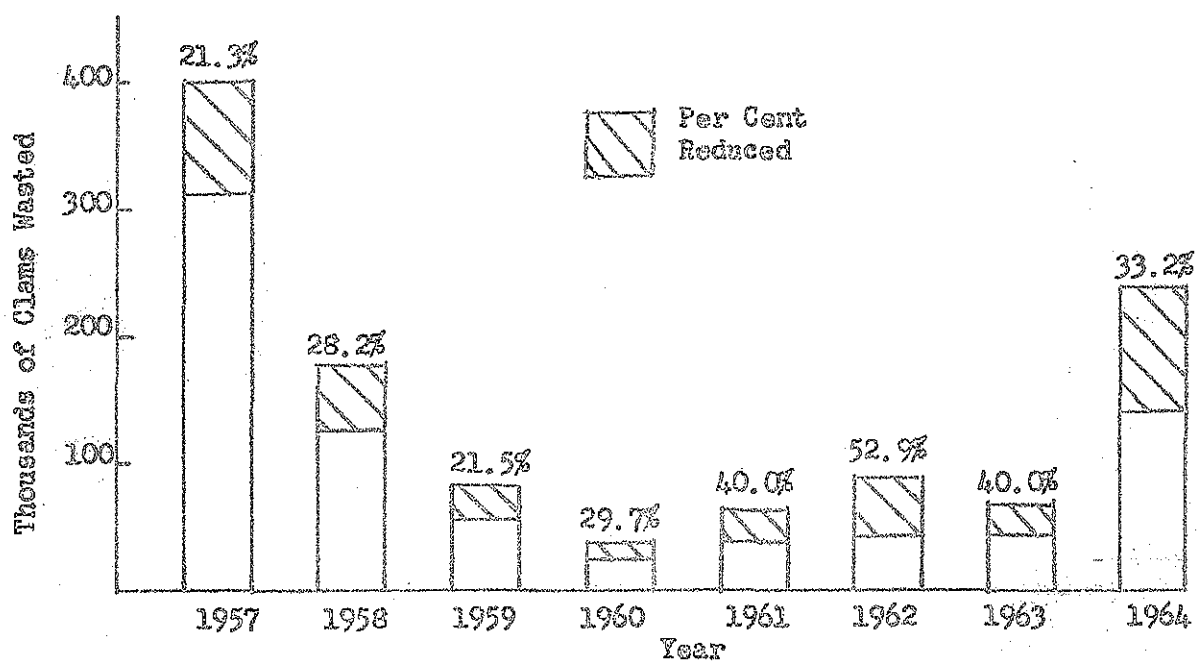


Figure 8. Theoretical Reduction in Personal-Use Wastage Effected by July 15 to August 31 Closure, 1957-1964. (Extrapolated data used for 1961 and 1963).