

56-17
#20

STATUS OF THE CLATSOP BEACH RAZOR CLAM STOCKS

INTRODUCTION

The Oregon Fish Commission shellfish staff has been investigating the razor clam stocks of the state since 1949. Although razor clams are found in variable concentrations all along the coast from the Columbia River to the California border, about 90% of the harvest is from the 18-mile beach located between the Columbia River and Tillamook Head. Both sport and commercial fisheries were and are active. Sampling methods were still being developed up to 1955, so the data shown is for the period 1955 to 1964.

STATUS OF THE FISHERY

Harvest and Number of Diggers

The harvest of razor clams fluctuates greatly and reflects both the digging intensity and the relative abundance of clams. The sport fishery peaked in 1958 at 1.7 million clams and fell off sharply in 1959 to 600,000. The sudden decline appears to have been due to poor survival of the young clams. Since 1961, there has been an upward trend in the fishery and in 1964 over one million clams were taken by the sport fishery, the first million-plus year since 1958.

The commercial fishery peaked in 1950 and has since declined. Since 1957, the commercial fishery has accounted for only 10 to 20% of the total harvest. The sport and commercial fishery harvests are shown in Figure 1.

Annually, an average of 60,000 diggers participate in the sport fishery. Since 1959, there has been an upward trend in the number of diggers which reached 70,000 in 1964. There were about 12,000 commercial landings in 1950, but the number has steadily declined to fewer than 1,000 since 1959.

Age Composition

The age of a razor clam is determined by counting the number of dark rings

no - see Oycw 1958
p. 13

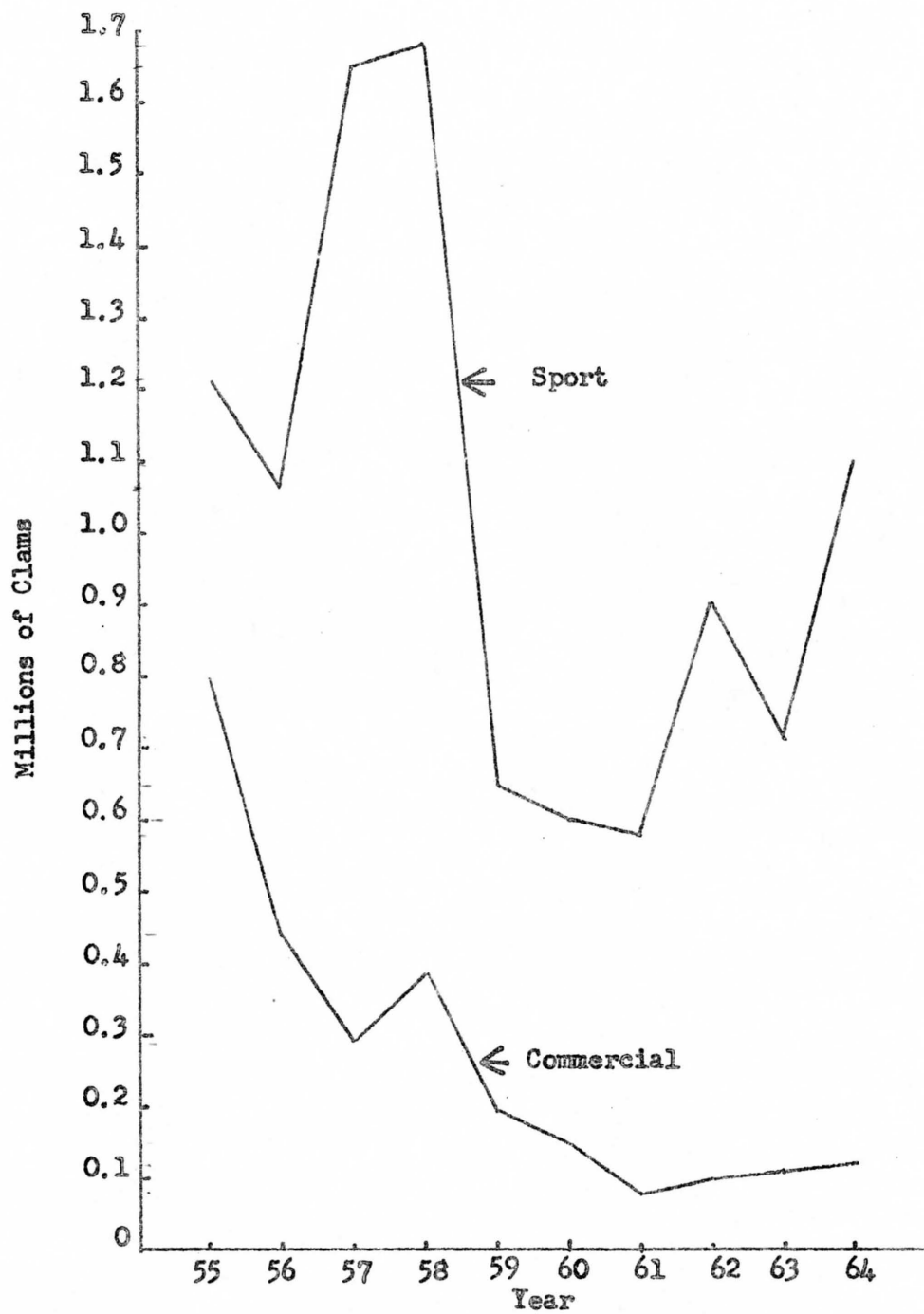


Figure 1. Sport and Commercial Harvest of Razor Clams from Clatsop Beach, 1955-1964.

on the shell. Razor clams spawn in the spring or summer and are about one inch in length by winter. During the next complete calendar year to the clam's second winter, it is designated as a 0+ clam and will average 3-3/4 inches in length. During the clams second winter, the first visible dark ring is formed and it is designated as a 1+ clam, and so on up to age 5 which is generally the maximum for Clatsop Beach.

The age composition of the sport dug clams shows that 70 to 80% of the clams dug each year were 0+ and 1+ clams, and there is very little carry-over of large clams to the next year. In 1962, 35% of the sport catch were 0+ clams and in 1964, 58% were 0+ clams.

The commercial fishery on the other hand is restricted to clams that are at least 4-1/4 inches in length, which eliminates small clams from the fishery.

UTILIZATION OF CLAM STOCKS

The number of razor clams harvested has shown a sustained increase since 1961. However, the resource has been subject to an undesirable usage from a yield standpoint in two respects: (1) the discarding of broken and small clams (wastage) and (2) harvest of small clams. Annually, from 37,000 to 400,000 clams are wasted and 57,000 to 635,000 small clams are dug. In general, the problem is now more serious. In 1964, over 242,000 clams were wasted, 2-1/2 times greater than in 1963 and 1-1/2 times greater than the 1957 to 1963 average. Also, over 635,000 small clams (1 to 3-1/2 inches) were dug in 1964, 1-1/2 times greater than in 1963 and 2 times greater than the 1957 to 1963 average. The problem is most serious between July 15 and August 31.

Darrel Demory, Aquatic Biologist
Oregon Fish Commission
Research Division

September 1965