

Razor Clam Investigation

January, February, March, and April of 1950

During January and most of February a stormy winter limited the field work that could be accomplished on the beaches. High winds and a rough sea obliterated the effect of most of the low water periods.

Additional sampling was carried on to obtain data on the mortality and growth of the 1949 year class of young razor clams. Because of poor tides and a sweeping surf over half the attempts at sample screening failed, but a limited amount of data was obtained. This will be summarized in a progress report to follow shortly.

Shell samples were taken from the commercial catch whenever digging took place. The samples from back months were measured and plotted for length frequency, and age readings were begun, at first on an experimental basis to learn the true criteria of age. A length-weight table was plotted based on samples from the October-November commercial clams.

Considerable time was spent on the crab investigation in the Astoria Area. This included tagging and checking for recoveries on tags.

March was a transition month from afternoon and evening tides to morning tides during which time neither was especially good. The last of February and the first few days of March a few days of favorable tides occurred. Census figures were taken on diggers; samples were made for the 1949 year class of razor clams; and some clams were dug for badly needed gonad samples, and random samples of age classes on various areas of beach.

During March an attempt was made to mark and plant clams but it was postponed because of bad weather and unsuccessful digging. Toward the end of the month additional length weight-weight data was gathered in an attempt to establish criteria of condition previous to spawning. After the end of February it was no longer practical to screen for the 1949 year class of razor clams. Their size and consequentially the depth at which they were often found made it necessary to dig what samples were obtained.

April was the beginning of the intensive commercial digging of razor clams. As a further check on condition of razor clams, comparative live and dressed weights were taken. It is believed the dressed weights may show the decrease in utilizable weight after spawning better than live weights since much extraneous material is removed in dressing and the water content can be kept more constant. These weights involve considerable time in digging the clams and then measuring, weighing, and dressing.

Salinity and temperatures were taken in an attempt to learn any physical shore conditions accompanying spawning. Plankton hauls were made for the young larvae, with little success.

From the 19th to 21st of April 560 clams were marked and planted along the beach immediately adjacent to Seaside. Additional plantings will be made on boat bars as soon as the subsiding surf makes it possible to reach the bars. Intensive sampling began on both commercial and non-commercial diggers. The help of an additional biologist enabled the investigation to obtain valuable data on catches, number of diggers, and other information necessary to evaluate the intensity of the fishery. On the whole we have received excellent cooperation on both recovery of marked clams and in localizing the size of the dig on the Seaside Area.

A partial set of young clams took place toward the end of April and a limited number of screening samples were taken of the incoming 1950 year class.

The condition of the clams from an examination of the gonads indicates that the major spawning has yet to occur.

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