

BAY CLAMS

This program addresses the management of Oregon's bay clam resource. Most of Oregon's bay clam production is in Tillamook, Netarts, Yaquina, Umpqua and Coos estuaries. Of the 20 species identified from Oregon's estuaries, cockle, gaper, butter, littleneck and softshell clams are the ones most commonly used. Commercial harvest of clams occurs primarily in Yaquina and Coos bays with gaper clams the principal species taken.

Investigations have shown that survival of bay clams, like razor clams, is governed by natural circumstances that appear to have a definite impact on stock size. Set from subtidal spawning probably contributes substantially to intertidal clam abundance.

Characteristics of estuarine habitat determine species distribution and abundance. Man's activities have greatly accelerated modification of habitat in estuaries. Siltation of clam beds and loss of beds from dredging and filling have been detrimental to populations. Ghost and mud shrimp aggravate sediment problems by keeping substrate soft and spongy.

Portions of many of Oregon's estuaries are contaminated by human and/or animal pathogens which prevents the sale of clams from some areas for food. Such contamination could affect the safety of clams for personal use. Pollutants also slow clam growth and affect survival.

COMMERCIAL HARVEST. From 1966 to 1974, the annual commercial take of bay clams averaged 29,000 lb. However, over 87,000 lb were taken in 1976, 83,000 lb in 1977, 215,000 lb in 1978, 94,000 lb in 1979 and 80,000 lb in 1980, nearly all by controlled subtidal harvesting. Subtidal beds, unavailable to most

personal use diggers have the potential to provide in excess of one million lb annually. Subtidal harvesting is limited to 10% of the estimated available biomass in designated areas annually. The renewed interest in commercial clamming was a direct result of subtidal clam surveys conducted during the mid 1970's.

RECREATIONAL HARVEST. Recreational use surveys in 1971 showed that over 1.8 million bay clams were harvested in 103,000 trips. Since 1971, bay clams on several popular tideflats have shown decreased averaged size and abundance. Regulation changes in 1977 reduced the daily aggregate bag limit on gaper, cockle, littleneck and butter clams and provided better utilization of the resource. Using other sport fisheries projections in Oregon, recreational demand could double by 1994, but shifting emphasis to lesser used species and areas may be necessary. Changes in the clam regulations may also be necessary.

Goal

1. Promote optimum use of the resource by all users.
2. Maintain clam abundance, diversity and habitat at optimum levels.

Objectives

1. Allow opportunity for as many users as possible to utilize the resource in an orderly fashion.
2. Maintain recreational clam harvest at acceptable levels.
3. Maintain habitat in a condition to optimize clam production.
4. Maintain the opportunity for a commercial harvest of bay clams.

Guidelines

1. The Department will seek compensation for loss of the resource caused by estuarine developments by man.
2. Mechanically aided commercial harvest of subtidal stocks will be allowed under permit only.

Problem 1 and Strategies

Effective management of bay clam stocks depends on assessment of clam stocks.

- * Continue to obtain recreational catch and effort for important estuaries.
- * Continue assessment of intertidal clam stocks.
- * Continue subtidal stock assessment in commercial harvest areas.
- * Determine allowable commercial harvest by time and area for subtidal beds.
- * Determine long term effect of harvesting on stocks.

Problem 2 and Strategies

Decreasing size and abundance of clams from several popular tideflats indicates possible overharvest.

- * Evaluate effect of regulation changes initiated in 1977 (which reduced bag limits for some species) on clam stocks and monitor recreational harvest to assess health of clam populations.
- * Revise regulations as necessary to maintain clam stocks and quality of the fishery.

Problem 3 and strategies

Some species of clams are underutilized because the public lacks knowledge about them.

- * Continue to promote harvest of underutilized species such as eastern softshells by publicizing them and by allowing a separate, liberal bag limit.
- * Create or improve access to tideflats with underutilized stocks.

Problem 4 and strategies

Productive habitat continues to be lost due to estuarine activities such as dredging and filling.

- * Continue Department review of development plans and seek modifications of plans detrimental to the resource.
- * Obtain compensation to offset losses where they cannot be prevented.
- * Maintain inventory program to identify estuarine resources and values for use by DLCD and by counties.

Problem 5 and strategies

Siltation has caused significant deterioration of clam habitat and this is aggravated by burrowing shrimp which keep tideflats soft and spongy.

- * Continue to support watershed protection to reduce sedimentation from logging, road construction, and other activities.
- * Investigate methods to improve degraded habitat and control shrimp populations.

Problem 6 and strategies

Markets for Oregon bay clams are weak because of unreliable supplies. In addition, east coast clams can be purchased more cheaply than local clams.

- * Stabilize supplies where appropriate by subtidal harvesting under permit.

Problem 7 and strategies

Criteria for creating or enhancing habitat are not well known.

- * Continue to identify preferred subtidal habitats.
- * Develop criteria for establishing new clam beds.
- * Monitor success of establishing clams in previously barren areas.

Problem 8 and strategies

State Health regulations prevent the sale of clams taken from areas that are potentially contaminated with human waste or other pathogens.

- * Continue efforts with DEQ to improve estuarine water quality and eliminate sources of human wastes or other contamination.
- * Explore methods to decontaminate clams to meet health standards.
- * Estimate present health-related marketing restrictions with the State Health Division for appropriateness.

Problem 9 and strategies

A policy guiding future subtidal commercial harvest has not been adopted.

- * Seek formal adoption by the Commission of the present subtidal clam harvesting "rules".

Problem 10 and strategies

The economic value of bay clams and their habitat has not been documented and should be determined to strengthen Department's position in their protection.

- * Determine statewide value of all harvest of bay clams.
- * Determine value of representative clam habitats.

Problem 11 and strategies

Elements contributing to recreational user satisfaction in estuaries are not well known.

- * Design and conduct a survey of marine resource users to determine what constitutes a satisfactory recreational experience.

Problem 12 and strategy

Potential use of bay clams for commercial mariculture has not been explored.

- * Explore mariculture possibilities with other agencies and potential growers (seed clams of some species have been produced under laboratory conditions).