PACIFIC COAST CRAB FISHERY

Today's hearing is occasioned primarily because persons concerned with the harvest and conservation of the crab resource of the Pacific Coast feel there is need for altering existing commercial fishing regulations. The following background on the matter is provided.

Present commercial crab regulations in the offshore waters of the Pacific Coast in California, Oregon, and Washington provide for the harvest of only adult male crabs above a certain size. The southern limit of crabs in any abundance is approximately San Francisco. The present season in California as far north as the southern border of Mendocino County is November 15 to August 15. In all other areas northward to the Canadian border the season is December 15-September 15, with the exception of a 250-mile stretch in Oregon of Oregon between the southern border and Cascade Head where the season is the same length but a month earlier. The Fish Commission has had public hearings in the past on crab regulations and they were discussed at the last two annual Pacific Marine Fisheries Commission meetings. Recommendations from various interested parties have included suggestions for establishing a uniform season along the Pacific Coast, and a later opening, possibly January 1.

On the first point of uniform seasons, biological evidence collected by Fish Commission personnel in 1947-1948 and in recent years shows generally that crabs in Oregon south of Cascade Head (Area II) reach prime condition prior to those in adjacent areas to the north and south thus providing biological basis for having an earlier season opening in this area.

Until 1948 there were no coastwide seasonal restrictions on the harvest of crabs in Oregon. Based on the research findings and sampling of landings, the present seasons were put into effect in that year.
Fluctuation in landings is thought to be due to variations in the survival of young crabs and independent of the fishery. The regulations on minimum size and sex restrict the fishery to adult male crabs in their third or fourth year of life, probably approaching the end of their life span. Males spawn at least once before they reach marketable size. Results of tagging experiments in Washington and Oregon suggest that the fishery harvests about 90 per cent of the available marketable crabs each season. Tagging experiments also indicate relatively little migration out of areas from which they are tagged. The principal problem then is not how many to harvest, but when to harvest them.

The second problem is that of establishing a season so that in every year the crabs harvested at the opening of the season will be in prime condition. The present opening dates are designed to permit harvesting crabs, on the average, as soon as they have reached prime condition after molting. Unfortunately, in some years a significant proportion of the crabs are not in prime condition when the season opens. One method of determining the condition of the crabs is to compare the softness of the shell and meat recovery from a given weight of crab. Plant records (meat recovery) and biologists' records (shell condition) were investigated with little success. The plant records were not comparable due to variations in processing and record keeping; the biologists' records likewise were of limited value due to uncontrollable variables. Determining total solids by the moisture extraction procedure indicated some promise, but to date limited funds and personnel have precluded its application. There is virtually no precise data available on the condition of the crabs in the various areas at the time the seasons open each year. Nevertheless it is generally recognized by both biologists and industry that in certain seasons, such as 1959-60, an appreciable portion of the crabs landed early in the existing seasons are not in prime condition. Some people feel that a delay in the opening will tend to insure that the vast majority will be in prime condition when fishing begins. Others believe that if the season is delayed
substantially the crabs will move into other areas where they may not be fished, or would die from natural causes before being harvested.

At their annual meeting in Portland on November 28-30, 1960, the EMFC recommended that the commercial offshore crab fishing seasons between Pt. Arena, California, and Cape Flattery, Washington, open on the same date and be determined in a conference of fishermen and staff biologists of the agencies concerned. This resolution was passed by the commission with Washington and California favoring and Oregon opposing it.

It is the findings of the Fish Commission shellfish research staff that neither proposed changes would have any significant effect on the total number of crabs harvested, but that a later opening and the same closing would in general provide for the harvesting of crabs in better condition, particularly at the beginning of the season. This in essence would provide greater utilization of the resource.

As a matter of interest, there is a regulation in Oregon which was established in 1957 providing for the season in Oregon offshore waters north of Cascade Head to be from January 1 to September 15, whenever Washington adopts a similar opening date. The season south of Cascade Head would be from November 15 to August 15.

It is recommended that the present relationship in opening dates be retained between the areas south and north of Cascade Head, but that the opening date in both areas be delayed so that Oregon's Area II season would be December 1 and Area I - January 1. This is contingent upon Washington's season being delayed accordingly to maintain the existing season opening differential. These proposed seasons should be considered experimental and subject to change after additional data are gathered.

Research Division
Oregon Fish Commission
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