

1977 journal I-C 2

MANAGEMENT PLAN FOR DUNGENESS CRAB

RESOURCE STATUS

Populations - Dungeness crab support important commercial and sport fisheries from central California north into the Gulf of Alaska. Crabs are found from the intertidal zone, including most estuaries, to depths of at least 180 fathoms in the ocean. They are most abundant at depths of less than 50 fathoms. Movements to different depths have been noted but north-south migration has not been documented. Crabs have a poorly understood cyclic pattern of abundance. Present regulations which allow only the harvest of mature male crabs and complete protection of females appear adequate to assure perpetuation of the resource.

Commercial Harvest - The crab fishery has consistently been one of the top four commercial fisheries in Oregon. Since 1943, production has fluctuated between 3 and 15 million lb. with a long term average of 8.0 million lb. annually. Crab abundance is the principal regulator of Oregon's commercial production. Over 99% of this production for commercial use comes from the ocean.

Recreational Harvest - Oregon's crab sport fishery is mainly confined to bays and estuaries. Hazardous boating conditions and the greater depths where crabs are found limit ocean sport crabbing. A survey in 1971 showed that about 230,000 crabs were caught from estuaries during about 125,000 user trips. By comparison, the commercial catch from the bays that year was 119,000 crabs. If trends in sport crabbing follow projections for other sport fisheries, the potential demand by 1994 would be for at least 250,000 user trips yearly. The annual sport catch will fluctuate with crab abundance, weather, extent of commercial bay crabbing, and other factors.

Commercial bay crabbing is at times a source of complaints from sport crabbers who feel they are competing for the available supply of harvestable crabs. The socioeconomic consequences of favoring one type of fishery over the other in the bays has not been examined.

GOAL

Provide for optimum use of the resource by sport and commercial fishermen consistent with maintaining crab abundance by protecting crab stocks and habitat.

OBJECTIVES

1. Maximize the economic return from the ocean commercial fishery while maintaining the average historical long term production of 8.0 million lb.
2. Provide maximum recreational crabbing opportunities of no less than 125,000 user trips through 1994.

PROBLEMS AND STRATEGIES

1. Processing and marketing restraints and fluctuating crab abundance cause unstable prices and prevent obtaining maximum economic yield from the commercial fishery.

Development of marketing associations, improved market structures and more detailed analysis of available data to better understand the crab life cycle are remedial actions.
2. The socioeconomic consequences of limiting fishing effort in the commercial crab fishery are unknown.

State-federal studies have identified needs for additional collection and analysis of social and economic data from the fishing industry to develop coast-wide management plans.

3. Basic data in a compatible form for the three west coast states concerning the effect of the fishery on harvestable crab stocks are only partially available.

Continued collection of Oregon data and standardization of data throughout the range of Dungeness crab is indicated.

4. The significance of certain fishing practices on crab mortality is unknown.

Uniform escape ports in traps (required by 1979) and continuing effort to eliminate abandoned traps that continue to fish are needed. Studies to assess mortality according to times and methods of fishing are needed.

5. Current levels of recreational crabbing are not known in enough detail to allow for improved management.

Studies being carried on during 1977 will give limited information of the type needed. The value of the recreational fishery should be determined by a well-designed study.

FISH DIVISION
OREGON DEPARTMENT OF FISH AND WILDLIFE
September 14, 1977