

ALASKA BOARD OF FISHERIES

MANAGEMENT PLAN TO REGULATE THE HERRING  
ROE-ON-KELP HARVEST IN THE BRISTOL BAY AREA

See also #79-49-FB,  
#80-80-FB,  
#79-60-FB,  
#80-68-FB

Management of the Togiak herring roe-on-kelp harvest should center upon a predetermined level of exploitation of Fucus sp. The Department recommends the establishment of a conservative exploitation objective of 10 percent of the available Fucus sp. biomass.

The Department has estimated the total Fucus sp. biomass within nine beach areas studied at 4,135,000 pounds. These areas were chosen on the basis of beach surveys such that individual kelp beds could be described and such that harvest could be monitored by individual area. A 95 percent confidence interval has been calculated for the biomass estimate for each beach area. To be conservative, 10 percent of the lower range estimate for each area will be emphasized as the management objective. Actual harvest quotas of roe-on-kelp product have been derived by assuming that the reported weight of commercial grade roe-on-kelp is composed of 25 percent plant weight (Fucus sp.). The 1980 total allowable harvest of roe-on-kelp is calculated at 934,000 pounds.

Individual kelp management areas, in the Department's opinion, should be kept open to commercial harvest until that harvest reaches the allowable harvest quota. At that time, particular kelp management areas should be closed by emergency order for the remainder of the fishing season.

Realization of this management plan is dependent upon monitoring of effort and harvest levels and upon enforcement of the quota system. The harvest needs to be monitored on a daily basis in-season for each kelp management area as the commercial fleet already has the capability of attaining the proposed quota for several management areas in a single day.

The primary effect of this management strategy is to provide protection to those kelp beds that have historically sustained a large harvest. The Department is not recommending that the kelp harvest be reduced as the 1980 total allowable harvest is roughly double the 1979 harvest of 479,000 pounds. Since 1978, the Department has conducted studies to determine specific regeneration rates of Fucus sp. in the Bristol Bay area. Utilization of this management strategy will minimize potential negative effects on the roe-on-kelp harvest on the kelp resource until ongoing biological studies of Fucus sp. in the Togiak area are completed.

ADOPTED: Anchorage, Alaska  
December 12, 1979

VOTE: 7/0