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***Proposed Canadian High Seas Salmon Research  
in the North Pacific Ocean, 1994.***

submitted by

The Department of Fisheries and Oceans,  
Government of Canada

to the

**NORTH PACIFIC ANADROMOUS FISH COMMISSION**

in accordance with Article VII 6 of the Convention.

**Canada**

## *SUMMARY - Canadian Offshore Salmon Research Plans for 1994*

The Canadian research vessel W.E. Ricker will conduct a study on the offshore distribution of Pacific salmon in the autumn of 1994. The objectives of the research are:

(1) to examine the relationship between oceanographic factors controlling the distribution of Pacific salmon on the high seas, and the potential impact of climatic change on oceanic salmon production.

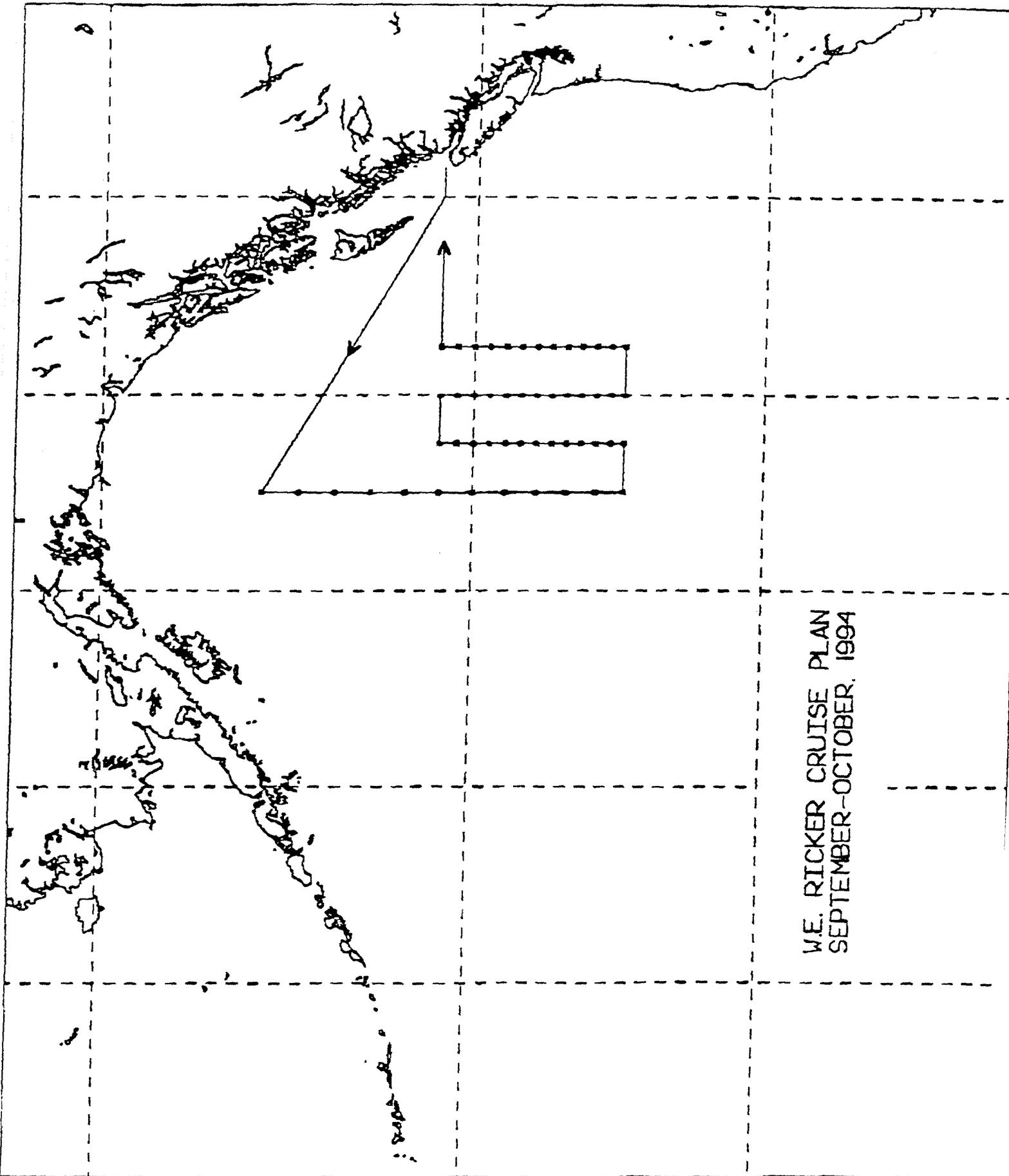
(2) to collect biological samples to determine the abundance of salmon and zooplankton, ration levels of salmon in the early autumn, the biological condition of the salmon caught, and their consequent rates of growth.

(3) to determine whether or not evidence exists that stocks of Fraser river sockeye show geographic separation within the Gulf of Alaska.

The surveys will be conducted in the Gulf of Alaska using a hexagonal mesh rope trawl as the primary sampling gear. The mouth opening will be approximately 35m deep by 50m wide. A small amount of 125mm mesh surface gillnet (less than 20 tans, or 1km in length), may also be used to supplement the trawl sampling if necessary in order to collect salmon scales for species identification, age determination, and to determine marine growth rates by year and age at sea.

A tentative cruise track is shown in Figure 1, but the exact fishing locations will be subject to change based on weather patterns and the location of the southern edge of the salmon distribution in the fall. Two to three trawls will be taken per day, each of one hour duration, and the duration of the cruise is expected to be approximately 28 days. The cruise is planned to extend from the first or second week of September into October.

Zooplankton samples will be collected with a Bongo net at night, and CTD stations will be taken at each fishing location. In addition, surface salinity, temperature, and chlorophyll concentrations will be continuously monitored and recorded while the W.E. Ricker is under way.



W.E. RICKER CRUISE PLAN  
SEPTEMBER-OCTOBER, 1994