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RESEARCH PLAN FOR THE UNITED STATES RESEARCH VESSEL MILLER FREEMAN IN THE EASTERN NORTH PACIFIC OCEAN MARCH-APRIL, 1998

by

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RESEARCH PLAN FOR U.S. CRUISE OF THE R/V MILLER FREEMAN MARCH-APRIL 1998

ABSTRACT

Plans for a research cruise to examine distribution of salmon in coastal and oceanic waters of the North Pacific Ocean during March-April, 1998 are described.

The NOAA vessel R/V MILLER FREEMAN, a 66-m research stern trawler, scheduled by the National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Auke Bay, Alaska Laboratory, will conduct a survey of salmon in the North Pacific Ocean.

Primary objectives of the cruise are : to conduct oceanography and trawling on a monitored near shore transect, assess the species distribution of immature and maturing salmon on a southerly tract, observe diel movement of salmon, obtain information on stock identity, growth and condition, maturation levels, incidence of thermal (hatchery) marks, incidence of micro-wire (hatchery) tags, food and feeding habits, and physical and biological environment of salmon and other co-occurring species.

Cruise times are Depart from Kodiak, Alaska on March 27 and return to Kodiak on April 3, 1998 at the end of the cruise.

Geographic area of coverage: The survey will begin 2.5 nmi off Cape Chiniak, Kodiak Island and complete ten monitoring stations out to 60 nmi off shore (Fig. 1). From the last station, we proceed to and then south on 150.5°W long. to 48° 50' N lat., where we turn east to 149°W long., and then turn north. At about 53° N lat. the survey ends and we proceed non-stop to Kodiak.

Methodology: On the Cape Chiniak transect, CTD casts will be made at each of the ten stations. On the even numbered stations, there will be a bongo plankton tow to 200 m and a 30 minute haul at the surface using a 400/500 midwater rope trawl. The net is 198 m long, and has a spread of 44 m horizontal and 13 m deep. On the ocean survey, stations will be nearly 50 nmi apart. The rope trawl will be towed twice at each stations, once at the surface and once deeper. During each 24-hr day, two stations will be trawled during daylight and one station trawled at night. Catches will be sorted to species and salmon will be processed for length, weight, condition, sex, and maturation. Tissue samples will be preserved for genetics analysis, otolith marks, micro wire tags, and stomach contents for food analysis. Non-salmonid fish will be processed for species, length, weight, number, and stomachs preserved for food analysis. In addition, at each station, there will be a CTD cast to 300 m and one or two bongo plankton tows. Zooplankton will be preserved.

Chief scientist for the cruise will be Richard Haight, NOAA, NMFS, Auke Bay Laboratory, 11305 Glacier Hwy, Juneau, AK 99801 USA, Phone (907) 789-6052, Fax 789-6094.

Attached:
1) Map of area coverage
2) Cruise Itinerary

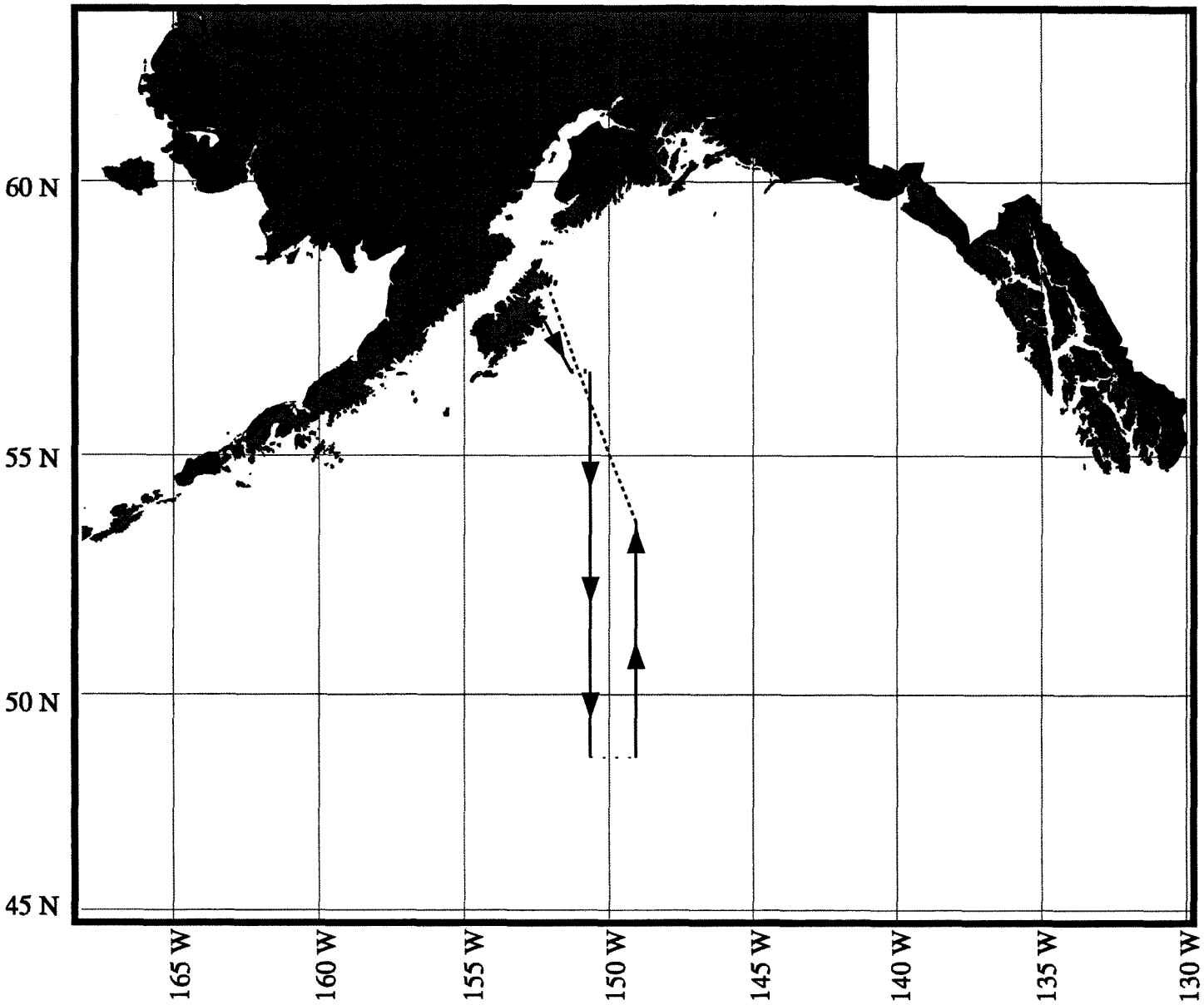

Figure 1. Proposed March-April 1998 survey route for the R/V MILLER FREEMAN. (Dotted line indicates vessel running; solid line indicates vessel fishing)

MARCH-APRIL 1998 PROPOSED CRUISE ITINERARY: R/V MILLER FREEMAN

Date	
Th 26 March	Kodiak Harbor, load gear, embark scientists
F 27 March	Depart Kodiak, arrive Cape Chiniak, begin Oceanography
Sa 28 March	Complete Cape Chiniak transect, begin southerly station sampling
Su 29 March	Continue fishing south on 150.5° W lat.
M 30 March	Continue fishing south on 150.5° W lat
Tu 31 March	Continue fishing south on 150.5° W lat. to about 48° 50' N long., turn east then north on 149° W lat.
W 01 April	Continue fishing north on 149° W long.
Th 02 April	End fish, and run non-stop to Kodiak, Alaska.
F 03 April	Arrive Kodiak, disembark scientists and equipment.