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**RESEARCH PLAN TO EXAMINE THE DISTRIBUTION OF SALMON  
IN THE GULF OF ALASKA AND THE NORTH PACIFIC OCEAN  
JULY-AUGUST 1998**

by  
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## RESEARCH PLAN TO EXAMINE THE DISTRIBUTION OF SALMON IN THE GULF OF ALASKA AND NORTH PACIFIC OCEAN, JULY-AUGUST 1998

### ABSTRACT

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

The F/V GREAT PACIFIC, a 38-m Bering Sea stern trawler, chartered by the U.S. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Auke Bay, Alaska Laboratory, will be used to conduct a survey of salmon in the North Pacific Ocean during July-August, 1998.

Primary objectives of the cruise are: to locate and document the distribution of juvenile, immature, and maturing salmon during summer in the North Pacific and obtain information on origin of stocks, growth and condition, maturation levels, incidence of thermal (hatchery) marks, food and feeding habits, and physical and biological environment of salmon and other ecologically related species.

Cruise times are: Departure from Seattle on July 21 and arrival in Dutch harbor to end the cruise on August 19, 1998.

Geographical area of coverage: Following a run from Seattle to Dixon Entrance, the survey will begin off Cape Muzon, and proceed north and west, covering coastal transects to 60-80 nm seaward off the coast of Southeastern Alaska, Prince William Sound, with a mid-cruise port call in Kodiak to exchange scientists, then continuing west from Kodiak to the Shumagin Islands, Unimak Pass, and into the Aleutians as far as south Adak Island, then east to Dutch Harbor to end the cruise.

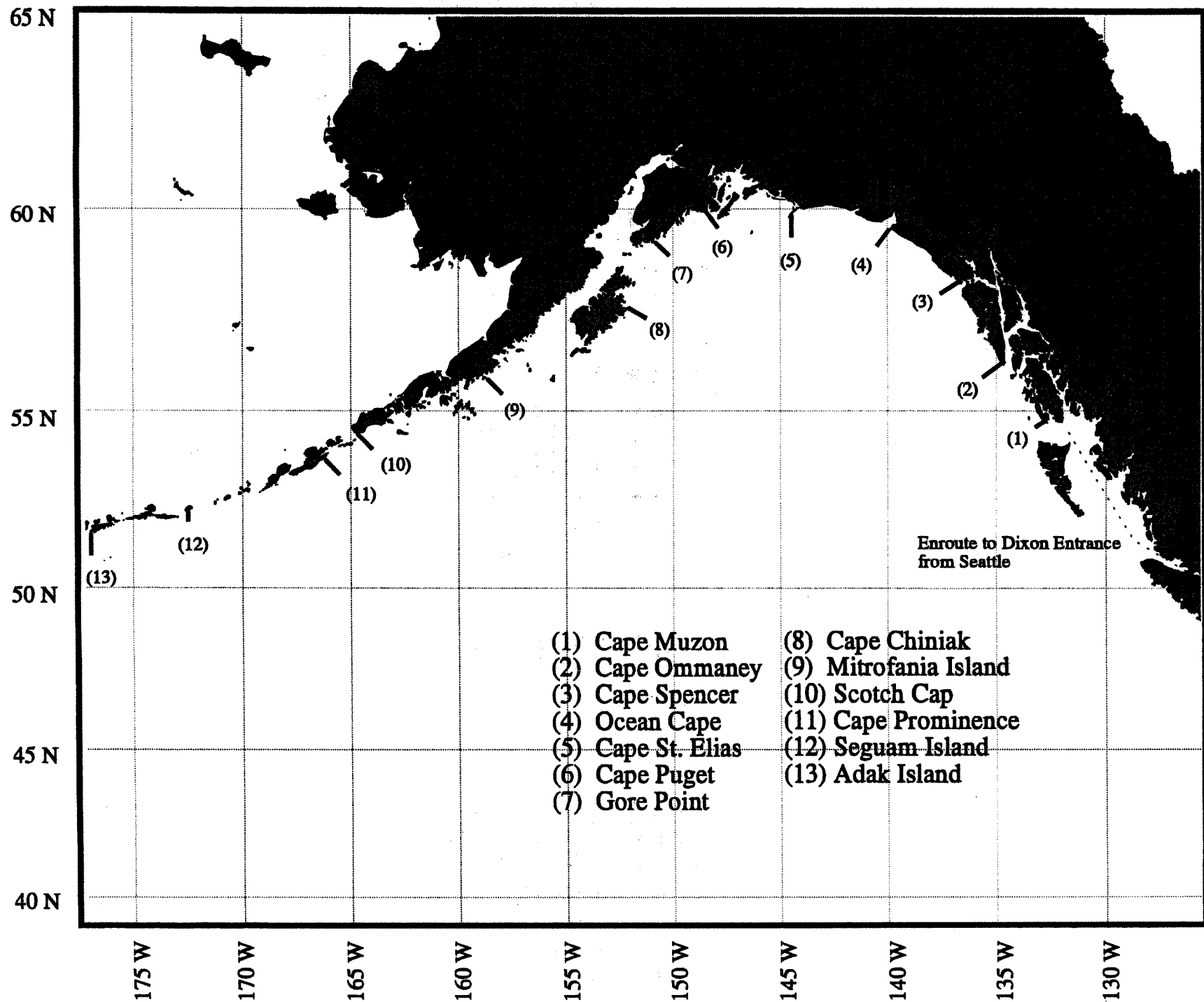
Methodology: Salmon and other fishes and marine life will be sampled in near-surface waters by towing at 5 kts a 400/580 midwater rope trawl, which is 198 m in length and fishes with a 13m vertical by 44 m horizontal opening, and has a 1.2 cm mesh liner in the codend. Catches will be sorted by species and salmon will be processed and samples preserved for growth, condition, and biological data, otolith marks, tissue samples for genetic analysis, and stomach contents for food analyses. Oceanographic observations will include CTD casts to 300-500 m at preselected stations on coastal transects off Cape Spencer, Cape St. Elias, Cape Puget, Cape Chiniak, Scotch Cap and S. Adak Island. Zooplankton will be sampled by vertical tows to 200 m using a 0.6 m bongo net with 253 and 505 mesh nets at preselected stations along coastal transects.

Chief scientist for the cruise will be Richard Carlson, NMFS, Auke Bay Laboratory, 11305 Glacier Hwy, Juneau, AK 99801-8626, USA. Phone (907) 789-6050, Fax (907) 789-6094, contact for further information.

Attached:

- 1) Map of area of coverage
- 2) Cruise Itinerary

# Proposed cruise plan for the F/V GREAT PACIFIC July-August 1998.



## JULY-AUGUST 1998 CRUISE ITINERARY: F/V GREAT PACIFIC

Date	Location/activity
Tu 21 July	Seattle--board scientists, gear, underway enroute Dixon Entrance (640 nm)
W 22 July	Underway
Th 23 July	Underway
F 24 July	Arrive Cape Muzon, begin fishing transect to 30 nm out
Sa 25 July	Complete C. Muzon transect, underway enroute Cape Ommaney (115 nm)
Su 26 July	Arrive Cape Ommaney, begin fishing transect to 60 nm out
M 27 July	Complete C. Ommaney transect, underway enroute Cape Spencer (155 nm)
Tu 28 July	Arrive Cape Spencer, begin ocnog, fishing to 60 nm out
W 29 July	Continue ocnog, fishing C. Spencer to 60 nm out
Th 30 July	Complete C. Spencer transect, underway enroute Ocean Cape (120 nm)
F 31 July	Arrive Ocean Cape, begin fishing to 60 nm out
Sa 1 Aug	Complete Ocean Cape transect, run to Cape St. Elias (105 nm)
Su 2 Aug	Cape St. Elias--fishing, ocnog. To 60 nm out
M 3 Aug	Complete C. St. Elias transect, run to Cape Puget transect (95 nm)
Tu 4 Aug	Cape Puget--fishing from 60 nm out, run to Gore Point (90 nm)
W 5 Aug	Gore Point--fishing out to 60 nm, run to Kodiak (80 nm)
Th 6 Aug	In Kodiak, exchange scientists
F 7 Aug	Cape Chiniak--fishing, ocnog to 60 nm
Sa 8 Aug	Complete C. Chiniak transect, underway enroute Mitrofanina Is. (210 nm)
Su 9 Aug	Arrive Mitrofanina Is. transect, fishing from 80 nm out shoreward
M 10 Aug	Complete Mitrofanina Is. Transect, underway enroute Unimak Pass (220 nm)
Tu 11 Aug	Arrive Scotch Cap--fishing, ocnog to 60 nm out
W 12 Aug	Complete Scotch Cap transect, underway Cape Prominence (100 nm)
Th 13 Aug	Cape Prominence--fishing to 60 nm out, underway enroute Seguam Is. (225 nm)
F 14 Aug	Arrive Seguam is, fishing to 30 nm out, underway enroute Adak Is. (140 nm)
Sa 15 Aug	Adak Is.--fishing, ocnog to 60 nm out
Su 16 Aug	Complete Adak Is. Transect, underway enroute Dutch Harbor (430 nm)
M 17 Aug	Underway enroute Dutch Harbor
Tu 18 Aug	Underway to arrive Dutch Harbor
W 19 Aug	Dutch Harbor--disembark scientists, gear, samples, end cruise