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**Proposed Cruise Plans of Japanese Research Vessels for  
Salmon in the North Pacific Ocean in 2009**

**by**

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Four Japanese salmon research vessels have been tentatively scheduled to conduct the following scientific research in the North Pacific and the Bering Sea in 2009 (Table 1). In case of gillnet operation, gillnets less than 2.5 km in length at sea will be used.

(1) The *Hokko maru* will conduct research with a surface/midwater trawl and hook-and-line to obtain information on the distribution, abundance and some biological characteristic of summering salmon in the Bering Sea and Chukchi Sea from early July to mid August (Fig. 1).

(2) The *Oshoro maru* will conduct research with gillnets, longline, hook-and-line and surface/bottom trawl to obtain data on the distribution and ecology of salmon and other pelagic fishes in the western North Pacific in May (Fig. 2), and in the central North Pacific and Bering Sea from early July to late August (Fig. 3, Appendix Table 1).

(3) The *Wakatake maru* will conduct research with gillnets and longlines to obtain data on the distribution and abundance of salmon along 180° longitude in the central North Pacific and Bering Sea from early June to late July (Fig. 4).

(4) The *Kaiun maru* will conduct research with gillnets to obtain data on the distribution and ecology of neon flying squid, salmon and other pelagic fishes in the western and central North Pacific Ocean from early July to early August (Fig. 5).

Table 1. Proposed cruise plan of Japanese research vessels for salmon in the North Pacific in 2007

Vessel	Period	Survey area	Research objects	Gear equipped
<i>Hokko maru</i>	July 9-August 17	Bering Sea, Chukchi Sea	Abundance Distribution	Surface/midwater trawl, hook-and-line
<i>Oshoro maru</i>	May 8-May20	Western North Pacific	Fish community	Gillnets, hook-and-line
	June 2-July 31	North Pacific, Bering Sea	Fish community	Gillnets, longline, hook- and-line, surface/bottom trawl
<i>Wakatake maru</i>	June 4 - July 17	Central North Pacific, Bering Sea	Stock assessment	Gillnets and longline
<i>Kaiun maru</i>	July 1-Aug 2	Central and western North Pacific	Stock assessment of neon flying squid	Gillnets

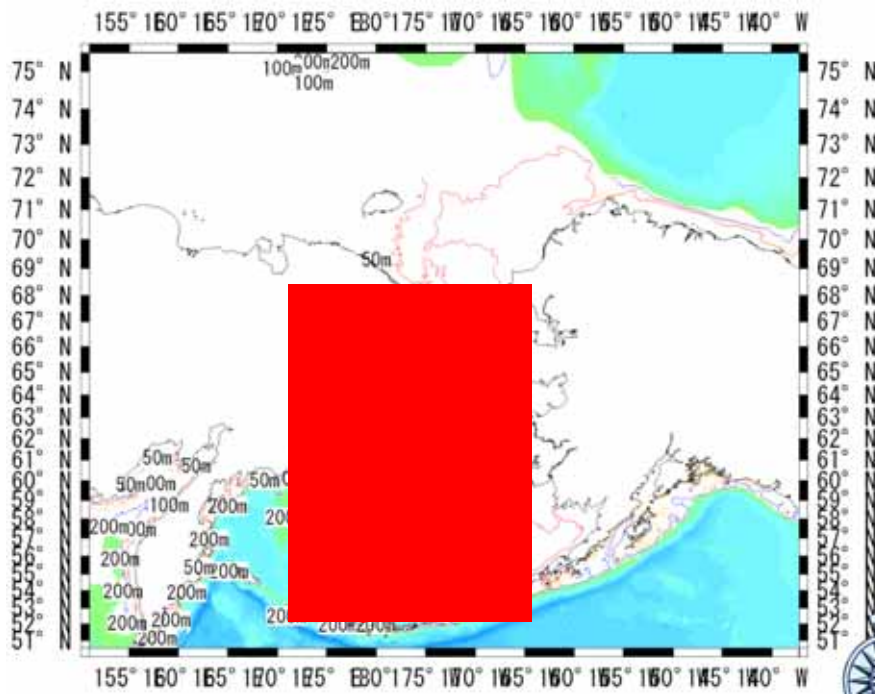


Fig. 1. Research area of the *Hokko maru* in the Bering Sea and Chukchi Sea, July 9 (Kushiro) – August 17 (Kushiro).

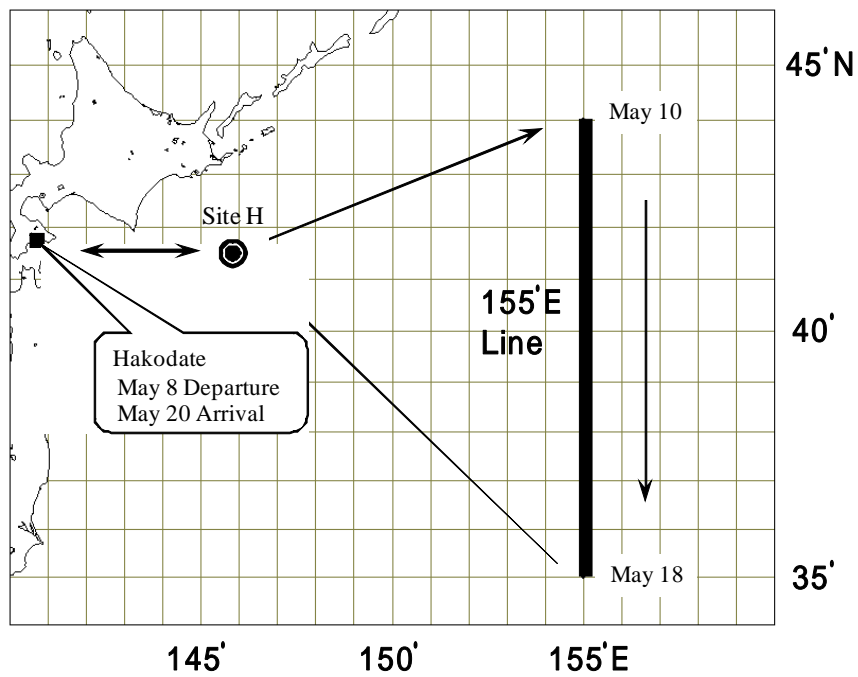
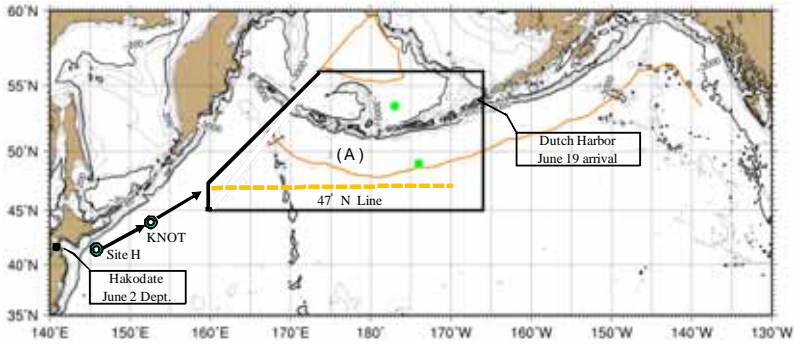


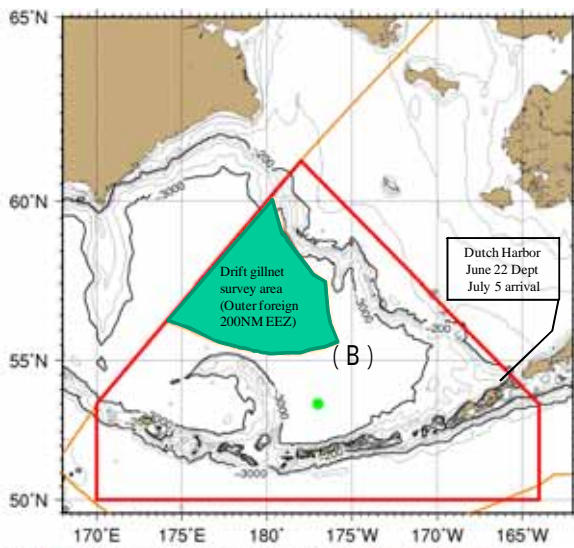
Fig. 2. Cruise plan of the *Oshoro maru* in the western North Pacific, May 8 (Hakodate) – May 20 (Hakodate).



Research Area (A)  
 The area in circumscribed by the following five points:  
 56° 00'N, 166° 00'W, 56° 00'N, 173° 30'E, 47° 30'N, 159° 00'E,  
 45° 00'N, 159° 00'E, 45° 00'N, 166° 00'W  
 Excludes Russian 200NM EEZ  
 Includes U.S. coastal area within 12 nautical miles  
 (Only for CTD, ADCP, and XCTD observations)

: Set mooring system  
 NOTE: Please note that land areas and territorial water within 3 miles from coast are excluded from survey area.

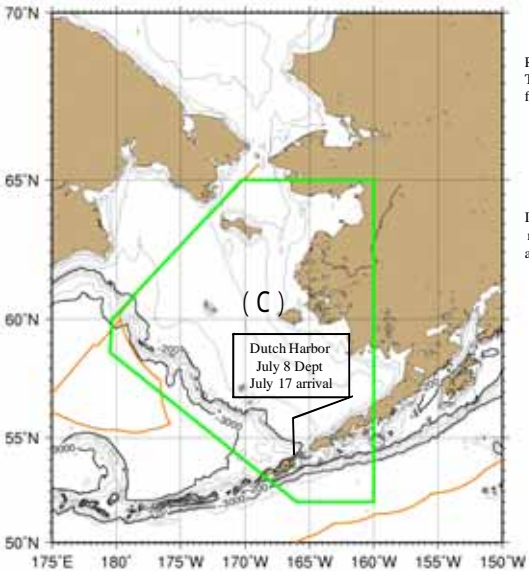
● : Retrieve and set Sediment trap



Research Area (B)  
 The area in circumscribed by the following five points:  
 61° 10'N, 178° 00'W  
 53° 30'N, 170° 00'E  
 50° 00'N, 170° 00'E  
 50° 00'N, 164° 00'W  
 53° 30'N, 164° 00'W  
 Includes coastal area within 12 nautical miles (Only for CTD, ADCP, and XCTD observations)

: Set mooring system  
 NOTE: Please note that land areas and territorial water within 3 miles from coast are excluded from survey area.

● : Retrieve and set Sediment trap



Research Area (C)  
 The area in circumscribed by the following six points:  
 65° 00'N, 160° 00'W  
 65° 00'N, 170° 15'W  
 60° 00'N, 179° 40'E  
 58° 40'N, 179° 30'E  
 52° 00'N, 166° 00'W  
 52° 00'N, 160° 00'W  
 Includes coastal area within 12 nautical miles (Only for CTD, ADCP, and XCTD observations)

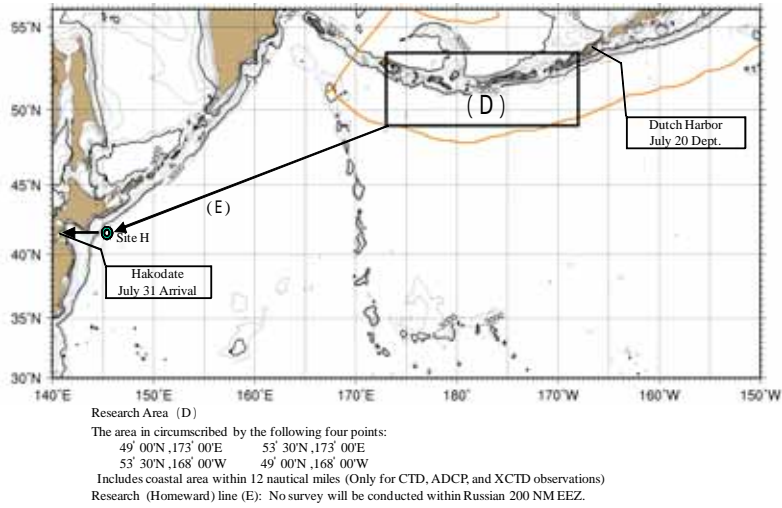


Fig. 3. Cruise plan of the *Oshoro maru*, June 2 (Hakodate) – July 31 (Hakodate) . (A) Leg 1, (B) Leg 2, (C) Leg 3, and (D) Leg 4.

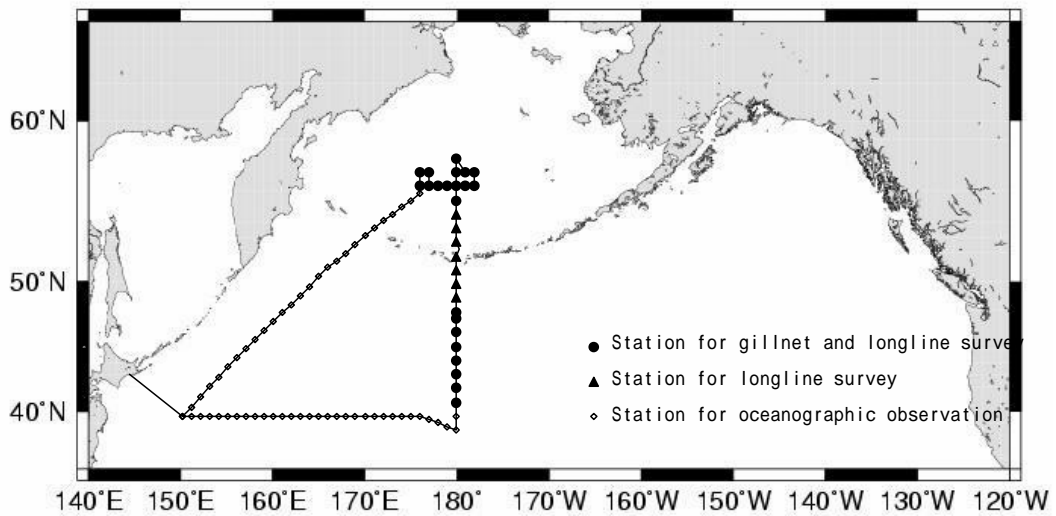


Fig. 4 Survey stations of the *Wakatake maru*, June 4 (Kushiro) - July 17 (Kushiro).

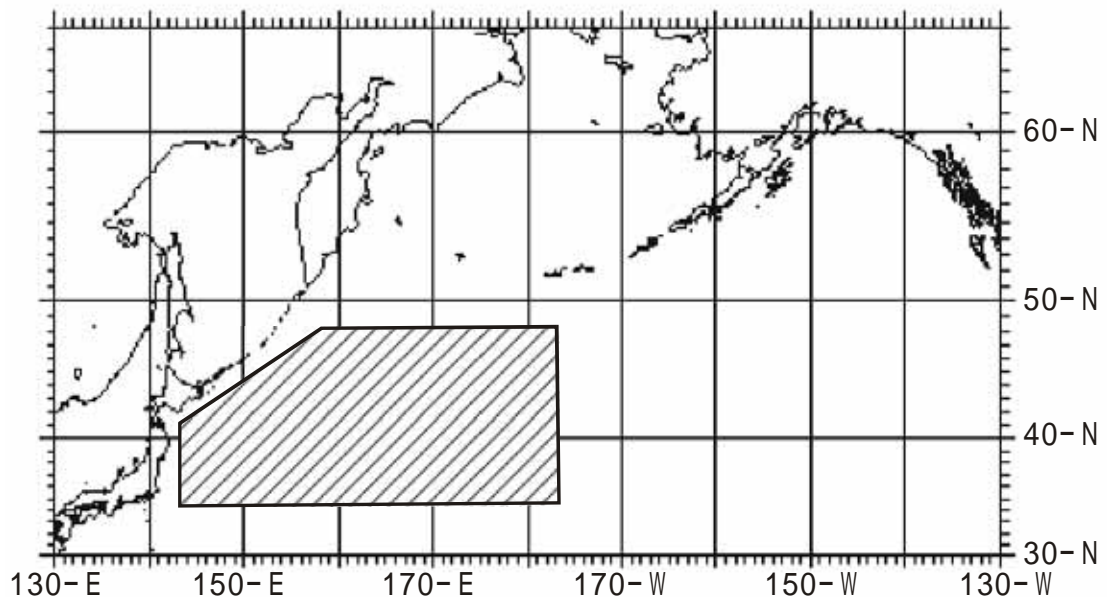


Fig. 5. Survey area of the *Kaiun maru* research cruise (excluding Russian 200NMZ).

July 1 (Hachinohe) – August 2 (Hachinohe).

Appendix Table 1. *Oshoro maru* 202nd Cruise Plan in summer 2009, Faculty of Fisheries, Hokkaido University

Port (Area)	Distance (N.Miles)	Arrival (Start)	Departure (Finish)	Remarks
Hakodate			June-09	Her qualification changes a foreign runner.
	240			
Site H (41°-30'N, 145°-47'E)		June-09	June-09	Oceanographic observation and plankton sampling. Automatic squid jiggings. Salmon sampling by hook-and-line gear.
	440			
KNOT (44°N, 155°E)		June-09	June-09	Oceanographic observation and plankton sampling. Drift gillnet research. Automatic squid jiggings. Salmon samplings by long line and hook-and-line gear.
	280			
47°N Line (160°E- 170°W)	1,030	June-09	June-09	Oceanographic observations and plankton samplings. Automatic squid jiggings. Drift gillnet and surface trawl research. Salmon samplings by long line and hook-and-line gear. Date change.
	200			
Around the Aleutian Islands	800	June-09	June-09	Oceanographic observations and plankton samplings. Retrieval and set sediment trap systems. Automatic squid jiggings. Salmon samplings by long line and hook-and-line gear. Set mooring systems.
	30			
Dutch Harbor		June-09	June-09	Change research staff and water supply.
	30			
Area around the Aleutian Islands and in the Bering Basin	2,000	June-09	July-09	Oceanographic observations and plankton samplings. Automatic squid jiggings. Drift gillnet and surface trawl research. Salmon samplings by long line and hook-and-line gear. Retrieval and set sediment trap systems. Set mooring systems.
	270			
Dutch Harbor		July-09	July-09	Change research staff and water supply.
	50			
Eastern Bering Sea	1,800	July-09	July-09	Oceanographic observations and plankton samplings. Surface and bottom trawl research. Salmon samplings by long line and hook-and-line gear.
	50			
Dutch Harbor		July-09	July-09	Change research staff and water supply.
Around the Aleutian Islands	900	July-09	July-09	Oceanographic observations and plankton samplings. Date change.
	1,300			Oceanographic observations and plankton samplings.
Site H		July-09	July-09	Oceanographic observation and plankton sampling.
	240			

Appendix Table 2. List of Salmon Research Vessels Scheduled for 2009 by Japanese Party

<b>Party</b>	<b>Vessel's Name</b>	<b>Call Sign</b>	<b>Gear Equipped</b>	<b>Other Available Information</b>
FRA Kushiro	Hokko maru	JEBB	Mid water trawl Hook and line	INMARSAT telephone: +872-7634-443-93, Length (m): 64.73, Gross Ton: 902
Hokkaido University	Oshoro Maru	JDVA	Gill nets, Longline, Hook and line	INMARSAT telephone: +872-3431-025-10 , Length (m): 72.85, Gross Ton: 1,779
FRA Kushiro	Wakatake Maru	JLOV	Gill nets, Longline	INMARSAT telephone: +872-3431-919-10, Length (m): 64.00, Gross Ton: 666
FRA Shimizu	Kaiun Maru	JRFC	Gill nets	INMARSAT telephone: +872-6431-610-10, Length (m): 45.50, Gross Ton: 208