



HOKKAIDO UNIVERSITY

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THE “OSHORU MARU” CRUISE 190
TO THE NORTHWEST PACIFIC OCEAN, THE BERING SEA AND CHUKTCH SEA

IN JUNE - JULY 2008

1. Cruise Itinerary

Cruise 190		
Departure from Hakodate	June	2, 2008
Start hydrographic research (OS08053)		3
Start Gillnet research (OSG0805)		8
Start salmon hook and line research (OSHL0801)		9
Start salmon long line research (OSSL0801)		10
Date change, repeat June 13		13
Arrival at Dutch Harbor and change research staff		21
Departure from Dutch Harbor		24
Start bottom trawl research (OST0801)		25
Finish salmon hook and line research (OSHL0820)		28
Arrival at Nome and change research staff	July	4
Departure from Nome		6
Finish salmon long line research (OSSL0808)		13
Finish bottom trawl research (OST0823)		13
Arrival at Dutch Harbor and change research staff		17
Departure from Dutch Harbor		20
Date change, skip July 24		23
Finish hydrographic research (OS08184)		28
Return to Hakodate	July	31, 2008
Total coverage 10041.8 miles 51days at sea and 9days in port		

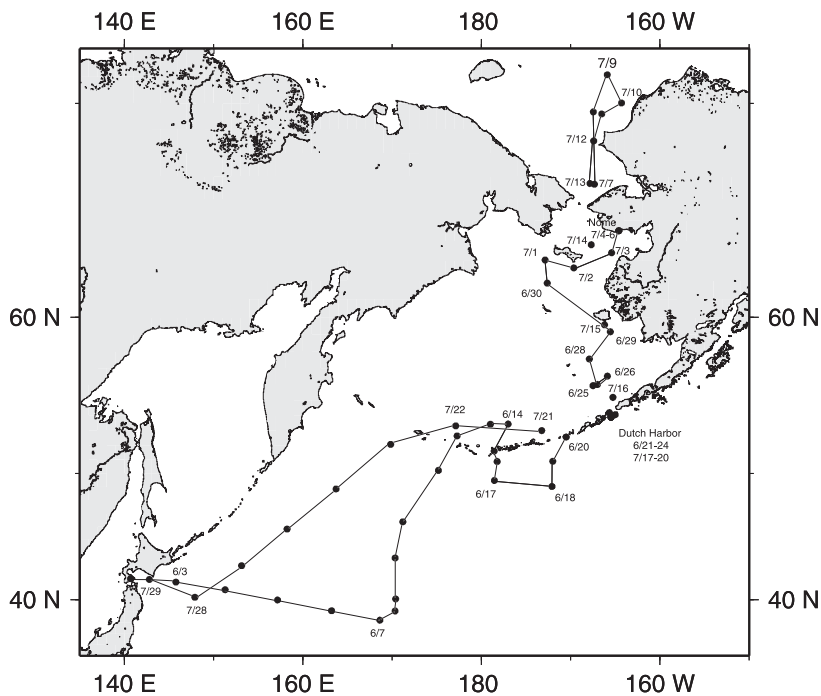


Figure 1: Track and noon position

2. Vessel Personnel

Captain:	Professor	Toshimi Meguro
Crew :	Chief Officer	Yoshiyuki Kajiware
	First Officer	Shogo Takagi
	Second Officer	Yoshihiko Kamei
	Jr. Second Officer	Keiichiro Sakaoka
	Chief Engineer	Junichi Kimura
	And 26 men	

Cruise 190

Research Staff:	Professor	(Laboratory of Marine Environmental Science)	
		Hakodate-Dutch Harbor (2nd call)	Kensi Kuma
	Professor	(Laboratory of Marine Environmental Science)	
		Hakodate-Dutch Harbor (1st call)	Mitsuru Yanada
	Professor	(Laboratory of Marine Environment and Resource Sensing)	
		Dutch Harbor (1st call)-Nome	Seiichi Saito
	Associate Professor	(Laboratory of Marine Environmental Science)	
		Hakodate-Dutch Harbor (1st call)	Yutaka Isoda
	Associate Professor	(Laboratory of Marine Environment and Resource Sensing)	
		Nome-Dutch Harbor (2nd call)	Toru Hirawake
	Instructor	(Laboratory of Marine Environmental Science)	
		Hakodate-Dutch Harbor (1st call)	Hiroji Onishi
	Associate Professor	(College of Bioresource Sciences, Nihon University)	
		Hakodate-Nome	Takahito Kojima
	Associate Professor	(Tokyo University of Marine Science and Technology)	
		Nome-Dutch Harbor (2nd call)	Koji Shimada
	Lecturer	(Institute of Low Temperature Science, Hokkaido University)	
		Hakodate-Dutch Harbor (1st call)	Tomohiro Nakamura
	Post Doctor		2 persons
	Graduate Students		14 persons
	Under Graduate Students		15 persons
Foreign Scientists:		(Pacific Aquaculture and Coastal Resources Center, University of Hawaii at Hiro)	
		Hakodate-Hakodate	Keiko Sekiguchi
		(Institute Marine Science, University of Alaska Fairbanks)	
		Dutch Harbor (1st call)-Dutch Harbor (2nd call)	Natalie Monacci
		(Kent State University)	
		Nome-Dutch Harbor (2nd call)	Robin Green
		(School of Fisheries and Ocean Sciences, University of Alaska Fairbanks)	
		Nome-Dutch Harbor (2nd call)	Luke Nolan Corrothers
		(School of Fisheries and Ocean Sciences, University of Alaska Fairbanks)	
		Nome-Dutch Harbor (2nd call)	Kirsten Baltz
		(School of Fisheries and Ocean Sciences, University of Alaska Fairbanks)	
		Dutch Harbor (1st call)-Nome	Grant Humphries
		(Institute Marine Science, University of Alaska Fairbanks)	
		Nome-Dutch Harbor (2nd call)	Jonathan Ricker
		(Institute Marine Science, University of Alaska Fairbanks)	
		Nome-Dutch Harbor (2nd call)	Brenda A.Holladay
		(International Arctic Research Center, University of Alaska Fairbanks)	
		Nome-Dutch Harbor (2nd call)	Jia Wang
Total			81 persons

3. Items and Objects of Research

Items

Hydrographic observation by CTD, XCTD, XBT and XCP casts:	Fig. 2	Table 1, 2
Biological research for fishes caught by non-selective drift gillnets:	Fig. 3	Table 3 - 7
Salmon longline and hook-and-line research:	Fig. 4	Table 8 - 11
Biological research for fishes caught by bottom trawl observations:	Fig. 5	Table 12, 13
Plankton samplings by NORPAC-net, MTD-net, Closing-net, Bongo-net, SCOR-net, and CalVET-net:		Table 14, 15
Water samplings by Niskin bottles, Data on Nutrient:		Table 16

Objects

Ecological studies on dominant zooplankton in the North Pacific and Bering Sea.
Studies on DVM of zooplankton in North Pacific.
Study on the distribution of cetacean species and the its relationship to the oceanographic conditions by the observation from the upper bridge or the bridge.
Research of growth, feeding ecology and trophic dynamics of Pacific salmon in the North Pacific, Bering, and Chukchi Sea.
Research of microbes that can degrade biodegradable plastic (PLA, PCL) in the Bering and the Chukchi sea.
Physical environmental survey in the North Pacific subarctic circulation.
Research on vertical and geographical distribtion of diatom.
Research on geographical distribtion of radiolarian assemblages.
Annual variation of sinking particle flux in the sub arctic Pacific, the Bering and the Chukchi Sea.
Observation of Seabird distribution in the Bering Sea
Microstructure measurements near the Emperor Seamounts and the Aleutian Ridge
Bio-optical measurement for ocean color remote sensing in the Bering Sea and the Chukchi Sea.
Study on fish physiological impacts when fish chased and restrained by fishing gear.
Study on the distribution and abundance of small demersal fishes and of epibenthic invertebrates.

4. Data on Temperature, Salinity, and Computed Dynamic Depth Anomaly

Hydrographic work on deck and the data processing were made by the deck officers, crews, research staff and cadets of the “Oshoro Maru”.

Temperature and salinity were measured by CTD (Seabird SBE-9Plus, SBE-19Plus and XCTD1 or 2).

Dynamic computations were made using a desk-top computer aboard the “Oshoro Maru”.

Water and Plankton samplings were also carried out at almost hydrographic stations.

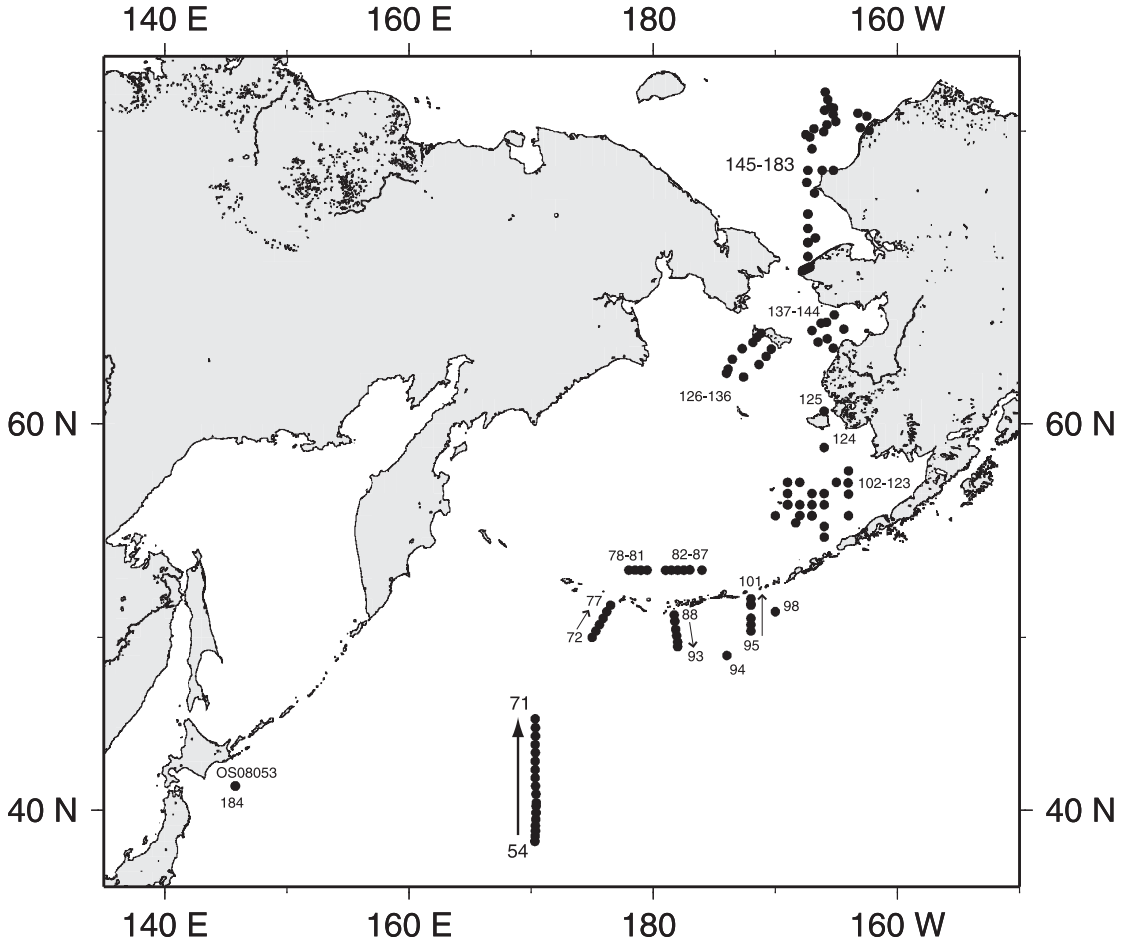


Figure 2: Oceanographic stations

Table 1: List of Oceanographic Stations

Station	Lat.(*)	Long.(*)	Date	S.M.T	T.Z.	Depth	COL.	TR.	S.S.T.	WR.	Remark
OS08053	41-30.1N	145-45.6E	6/3	1232	9	6856	4	8.9	8.9	c	SBE-9plus
OS08054	37-59.8N	170-18.2E	6/7	2132	11	1024	-	-	15.2	bc	SBE-9plus
OS08055	38-20.0N	170-19.5E	6/8	0504	11	4970	-	-	-	b	XCTD2
OS08056	38-40.0N	170-21.4E	6/8	0701	11	6293	-	-	-	b	XCTD2

Table 1 cont.

Station	Lat.(*)	Long.(*)	Date	S.M.T	T.Z.	Depth	COL.	TR.	S.S.T.	WR.	Remark
OS08057	39-00.9N	170-20.5E	6/8	1042	11	6250	2	32.9	14.8	b	SBE-9plus
OS08058	39-25.0N	170-22.5E	6/9	0813	11	6189	-	-	-	bc	XCTD2
OS08059	39-50.0N	170-24.0E	6/9	1038	11	6290	-	-	-	bc	XCTD2
OS08060	40-15.4N	170-24.6E	6/9	1312	11	3022	-	-	-	bc	XCTD2
OS08061	40-27.5N	170-25.0E	6/9	1555	11	1501	4	19.9	12.3	c	SBE-9plus
OS08062	41-00.0N	170-23.9E	6/9	2004	11	1244	-	-	-	c	XCTD2
OS08063	41-29.9N	170-21.9E	6/9	2246	11	3180	-	-	-	c	XCTD2
OS08064	42-00.4N	170-19.9E	6/10	0211	11	2770	-	-	13.1	c	SBE-9plus
OS08065	42-30.0N	170-20.0E	6/10	0623	11	1687	-	-	-	c	XCTD2
OS08066	43-00.6N	170-20.1E	6/10	0910	11	1642	-	-	-	c	XCTD2
OS08067	43-31.3N	170-20.9E	6/10	1409	11	4300	5	15.2	8.7	o	SBE-9plus
OS08068	43-59.9N	170-20.2E	6/10	2118	11	4351	-	-	-	o	XCTD2
OS08069	44-29.8N	170-21.1E	6/10	2356	11	1168	-	-	-	r	XCTD2
OS08070	44-59.8N	170-21.4E	6/11	0238	11	3207	-	-	-	d	XCTD2
OS08071	45-30.0N	170-19.9E	6/11	0557	11	5330	-	-	-	o	XCTD2
OS08072	49-59.8N	174-59.6E	6/12	1017	11	4706	-	-	-	o	XCTD2
OS08073	50-20.0N	175-18.1E	6/12	1250	11	4666	5	11.3	7	o	SBE-9plus
OS08074	50-39.7N	175-35.8E	6/12	1805	11	5590	-	-	-	o	XCTD2
OS08075	51-00.0N	175-54.0E	6/12	2020	11	7190	-	-	6.9	o	SBE-9plus
OS08076	51-20.1N	176-11.9E	6/13	0155	11	5020	-	-	-	o	XCTD2
OS08077	51-39.9N	176-30.1E	6/13	0416	11	3921	-	-	5.7	r	SBE-19plus
OS08078	53-25.0N	178-00.1E	6/13	1632	11	3893	5	11.4	5.9	o	SBE-19plus
OS08079	53-25.1N	178-29.9E	6/13	2043	11	3190	-	-	-	o	XCTD2
OS08080	53-24.8N	178-59.7E	6/13	0232	-12	2891	-	-	5.9	d	SBE-9plus
OS08081	53-25.0N	179-29.8E	6/13	0642	-12	2763	-	-	-	m	XCTD2
OS08082	53-25.0N	179-59.9W	6/13	0832	-12	827	-	-	-	o	XCTD
OS08083	53-24.9N	179-30.0W	6/13	1008	-12	1322	-	-	-	o	XCTD2
OS08084	53-24.7N	179-00.9W	6/13	1240	-12	3740	5	11.2	6.4	o	SBE-9plus
OS08085	53-25.0N	178-30.1W	6/13	1707	-12	3802	-	-	-	o	XCTD2
OS08086	53-25.0N	177-59.8W	6/13	1852	-12	3787	5	14.1	6.3	r	SBE-9plus
OS08087	53-26.1N	177-00.2W	6/14	1215	-12	3780	5	11.6	5.6	c	SBE-9plus
OS08088	51-10.1N	179-43.1W	6/16	0615	-12	3667	5	19.5	6.4	c	SBE-9plus
OS08089	50-50.4N	179-46.1W	6/16	1115	-12	5450	4	20.3	6.4	c	SBE-9plus
OS08090	50-25.1N	179-50.0W	6/16	1815	-12	6505	6	8.6	7.5	f	SBE-9plus
OS08091	50-05.0N	179-55.0W	6/16	2343	-12	5979	-	-	7.3	d	SBE-9plus
OS08092	49-44.9N	179-59.9W	6/17	0538	-11	5161	-	-	-	r	XCTD2
OS08093	49-30.2N	179-59.8W	6/17	0712	-11	4965	4	14.2	7.8	r	SBE-9plus
OS08094	49-01.9N	174-02.0W	6/18	0725	-11	5335	4	20	7.8	o	SBE-9plus
OS08095	50-19.9N	172-00.1W	6/19	0205	-10	5475	-	-	7.6	r	SBE-9plus
OS08096	50-40.1N	172-00.0W	6/19	0832	-10	5820	5	14.9	7.6	r	SBE-9plus
OS08097	51-00.1N	172-00.1W	6/19	1251	-10	6953	5	7.4	7.6	d	SBE-9plus
OS08098	51-20.0N	171-59.9W	6/19	1906	-10	4420	5	11.5	7.8	f	SBE-19plus
OS08099	51-40.0N	172-00.0W	6/19	2333	-10	3626	-	-	7	c	SBE-9plus
OS08100	51-44.3N	172-00.2W	6/20	0440	-9	3513	-	-	-	c	XCTD2
OS08101	51-59.8N	172-00.1W	6/20	0804	-9	157	-	-	-	c	XCTD1
OS08102	54-59.9N	166-00.2W	6/24	1623	-8	135	6	7.6	6.5	o	SBE-9plus
OS08103	55-30.0N	166-00.4W	6/24	2045	-8	120	6	9.6	6.7	o	SBE-9plus

(*):Fixed position by Global Positioning system

Table 1 cont.

Station	Lat.(*)	Long.(*)	Date	S.M.T	T.Z.	Depth	COL.	TR.	S.S.T.	WR.	Remark
OS08104	56-00.0N	165-59.8W	6/24	2358	-8	113	-	-	6.9	r	SBE-9plus
OS08105	55-59.9N	167-00.0W	6/25	0406	-8	133	-	-	6.7	r	SBE-9plus
OS08106	56-00.2N	168-00.4W	6/25	0757	-8	137	6	11.6	6.8	o	SBE-9plus
OS08107	55-59.9N	170-00.3W	6/25	1640	-8	203	5	9	6.5	d	SBE-19plus
OS08108	56-30.1N	169-00.7W	6/25	2332	-8	101	4	7.7	5.9	c	SBE-19plus
OS08109	56-29.9N	168-00.1W	6/26	0445	-8	115	-	-	5.3	c	SBE-19plus
OS08110	56-30.0N	167-00.1W	6/26	0835	-8	103	4	10.2	5.5	c	SBE-19plus
OS08111	56-29.9N	166-00.0W	6/26	1445	-8	85	5	11.2	6	bc	SBE-9plus
OS08112	56-58.4N	165-59.9W	6/26	1935	-8	70	5	12	4.9	bc	SBE-9plus
OS08113	57-00.0N	167-00.0W	6/27	0024	-8	72	-	-	4.6	f	SBE-9plus
OS08114	57-00.0N	167-59.9W	6/27	0402	-8	77	-	-	4.6	d	SBE-9plus
OS08115	55-59.7N	168-59.6W	6/27	1204	-8	1254	5	10.3	5.9	c	XCTD2
OS08116	55-40.0N	169-39.8W	6/27	1551	-8	2670	4	12.6	7.6	c	SBE-9plus
OS08117	56-29.9N	169-00.0W	6/28	0003	-8	102	-	-	5.8	o	SBE-9plus
OS08118	57-00.0N	169-00.0W	6/28	0427	-8	77	-	-	4.8	c	SBE-9plus
OS08119	57-30.0N	169-00.1W	6/28	0820	-8	68	5	11.3	4.4	c	SBE-9plus
OS08120	57-30.1N	168-00.1W	6/28	1348	-8	68	6	9.1	4.4	d	SBE-9plus
OS08121	57-30.0N	166-59.9W	6/28	1704	-8	68	6	11.6	4.3	bc	SBE-9plus
OS08122	57-28.6N	165-57.8W	6/28	2120	-8	65	6	9.7	5.4	f	SBE-9plus
OS08123	58-00.1N	165-59.8W	6/29	0325	-8	55	-	-	3.9	c	SBE-9plus
OS08124	59-00.0N	166-00.0W	6/29	0938	-8	26	6	8.8	3.8	m	SBE-9plus
OS08125	60-30.0N	167-59.9W	6/29	1951	-8	27	5	8.6	4.1	o	SBE-9plus
OS08126	61-51.4N	173-23.7W	6/30	1210	-8	63	3	17.2	5.2	c	SBE-9plus
OS08127	62-00.0N	174-00.1W	6/30	1410	-8	64	3	24.5	5.3	c	SBE-9plus
OS08128	62-09.3N	174-08.1W	6/30	1715	-8	64	3	18.9	5.3	o	SBE-9plus
OS08129	62-31.9N	174-28.7W	6/30	1938	-8	69	4	16.4	5.3	o	SBE-9plus
OS08130	62-20.0N	172-39.9W	7/1	0043	-8	55	-	-	6	o	SBE-9plus
OS08131	62-56.0N	173-17.2W	7/1	0655	-8	67	3	13.6	5.6	c	SBE-9plus
OS08132	63-30.1N	172-50.0W	7/1	1525	-8	59	4	11.1	5.2	d	SBE-9plus
OS08133	63-21.1N	172-29.9W	7/1	1814	-8	60	4	16.1	5.6	o	SBE-9plus
OS08134	63-10.1N	172-10.0W	7/1	2003	-8	58	4	15.3	5.6	o	SBE-9plus
OS08135	62-55.1N	171-40.0W	7/1	2218	-8	48	4	14.6	5.7	c	SBE-9plus
OS08136	62-38.4N	171-14.8W	7/2	0635	-8	43	4	16	5.8	o	SBE-9plus
OS08137	62-57.0N	166-45.0W	7/2	2027	-8	24	8	7.6	11.4	c	SBE-9plus
OS08138	63-10.5N	167-30.0W	7/2	2331	-8	32	6	11.6	8.6	c	SBE-9plus
OS08139	63-52.0N	167-44.8W	7/3	0436	-8	32	-	-	4.8	bc	SBE-9plus
OS08140	63-36.0N	167-00.1W	7/3	0932	-8	25	10	8	11.7	c	SBE-9plus
OS08141	63-17.9N	166-15.0W	7/3	1305	-8	21	10	7.8	9.9	c	SBE-9plus
OS08142	63-39.2N	165-36.4W	7/3	1655	-8	20	9	3.8	9.7	bc	SBE-9plus
OS08143	63-54.0N	166-11.9W	7/3	1935	-8	25	9	6.3	9.7	bc	SBE-9plus
OS08144	64-10.0N	166-49.8W	7/3	2246	-8	28	8	9.2	11.3	bc	SBE-9plus
OS08145	65-42.4N	168-15.2W	7/7	0037	-8	42	-	-	8	bc	SBE-9plus
OS08146	65-43.1N	168-19.8W	7/7	0105	-8	50	-	-	8.3	bc	SBE-9plus
OS08147	65-45.2N	168-29.9W	7/7	0145	-8	54	-	-	7.3	bc	SBE-9plus
OS08148	65-47.3N	168-40.2W	7/7	0225	-8	50	-	-	6.7	bc	SBE-9plus
OS08149	65-49.1N	168-49.5W	7/7	0303	-8	47	-	-	3.4	bc	SBE-9plus
OS08150	66-10.5N	168-40.0W	7/7	0530	-8	52	6	8.3	5.3	c	SBE-9plus
OS08151	66-37.9N	168-40.1W	7/7	1058	-8	41	4	12.2	7.5	bc	SBE-9plus

(*):Fixed position by Global Positioning system

Table 1 cont.

Station	Lat.(*)	Long.(*)	Date	S.M.T	T.Z.	Depth	COL.	TR.	S.S.T.	WR.	Remark
OS08152	67-05.2N	168-39.8W	7/7	1500	-8	43	6	13.6	4.6	bc	SBE-9plus
OS08153	67-32.4N	168-40.1W	7/7	1803	-8	47	5	9.8	4.5	c	SBE-9plus
OS08154	69-54.2N	168-29.8W	7/8	1520	-8	40	7	4	0.2	c	SBE-9plus
OS08155	69-59.1N	167-58.0W	7/8	1752	-8	46	6	6.7	-0.2	o	SBE-9plus
OS08156	70-04.0N	167-09.9W	7/8	2036	-8	44	5	13.3	4.8	bc	SBE-9plus
OS08157	70-16.1N	166-57.1W	7/8	2320	-8	43	6	9.5	2.6	c	SBE-9plus
OS08158	70-28.1N	166-44.0W	7/9	0125	-8	46	5	9.7	3.4	bc	SBE-9plus
OS08159	70-40.0N	166-31.0W	7/9	0414	-8	40	6	8.3	3.8	bc	SBE-9plus
OS08160	70-52.0N	166-17.8W	7/9	0557	-8	41	6	10.6	4.1	bc	SBE-9plus
OS08161	71-04.0N	166-05.1W	7/9	0820	-8	41	6	11	1.1	c	SBE-9plus
OS08162	70-38.3N	166-46.3W	7/9	2025	-8	45	5	8.9	2.7	c	SBE-9plus
OS08163	70-34.8N	166-02.0W	7/9	2245	-8	41	4	13.4	5	c	SBE-9plus
OS08164	70-29.8N	164-45.7W	7/10	0339	-8	43	6	10.7	4.2	bc	SBE-9plus
OS08165	70-24.8N	163-29.6W	7/10	0638	-8	32	5	13.6	3.8	bc	SBE-9plus
OS08166	70-00.9N	163-41.6W	7/10	1126	-8	25	5	16	7.5	c	SBE-9plus
OS08167	70-05.8N	164-57.6W	7/10	1555	-8	39	5	13	5.5	c	SBE-9plus
OS08168	70-10.7N	166-14.0W	7/10	1935	-8	43	4	13.6	5.6	bc	SBE-9plus
OS08169	69-50.1N	168-49.5W	7/11	0812	-8	45	4	9.7	4.2	c	SBE-9plus
OS08170	69-30.0N	167-00.1W	7/11	1430	-8	45	5	12.2	5.1	c	SBE-9plus
OS08171	68-52.3N	166-45.4W	7/12	0212	-8	43	5	9.4	5.5	c	SBE-9plus
OS08172	68-52.3N	167-50.0W	7/12	0453	-8	48	4	14	6.2	bc	SBE-9plus
OS08173	68-52.3N	168-40.1W	7/12	0728	-8	50	4	19.5	5.3	bc	SBE-9plus
OS08174	68-30.7N	168-34.5W	7/12	1400	-8	51	4	18.1	4.3	r	SBE-9plus
OS08175	68-11.4N	167-12.8W	7/12	1830	-8	44	4	13.3	4.7	r	SBE-9plus
OS08176	67-32.6N	168-39.7W	7/13	0005	-8	48	6	3.4	2.9	bc	SBE-9plus
OS08177	66-46.9N	167-16.8W	7/13	0644	-8	32	6	13.7	6.4	f	SBE-9plus
OS08178	66-37.9N	168-39.9W	7/13	1502	-8	42	5	11.8	5.8	f	SBE-9plus
OS08179	65-49.1N	168-49.7W	7/13	2059	-8	47	-	-	4.7	o	SBE-9plus
OS08180	65-47.5N	168-40.4W	7/13	2142	-8	50	-	-	5.1	c	SBE-9plus
OS08181	65-45.3N	168-30.1W	7/13	2229	-8	53	-	-	6.6	c	SBE-9plus
OS08182	65-43.3N	168-19.7W	7/13	2322	-8	50	-	-	5.3	d	SBE-9plus
OS08183	65-42.4N	168-15.2W	7/13	2356	-8	42	-	-	7.3	r	SBE-9plus
OS08184	41-30.0N	145-46.9E	7/28	2233	10	6800	-	-	16.2	c	SBE-9plus

(*):Fixed position by Global Positioning system

Table 2: Oceanographic data

Station		OS08053	
Longitude		41-30.1N	
Latitude		145-45.6E	
Depth(m)		6856	
Press.	Temp.	Sal.	SIG-T
5	6.774	33.074	25.932
10	6.526	33.078	25.967
20	6.127	33.094	26.031
30	5.256	33.042	26.094
40	3.606	33.047	26.271
50	2.284	33.146	26.464
75	3.191	33.364	26.563
100	3.248	33.402	26.587
125	2.702	33.365	26.606
150	2.494	33.418	26.666
200	1.840	33.429	26.725
250	2.115	33.517	26.774
300	2.487	33.627	26.833
400	2.987	33.820	26.945
500	3.320	33.984	27.045
600	3.308	34.088	27.129
700	3.223	34.195	27.222
800	3.077	34.251	27.280
900	2.946	34.297	27.329
1000	2.808	34.356	27.388
1200	2.620	34.430	27.464
1500	2.336	34.498	27.542
2000	1.998	34.572	27.629
2500	1.744	34.619	27.687
3000	1.625	34.642	27.714

Station		OS08054	
Longitude		37-59.8N	
Latitude		170-18.2E	
Depth(m)		1024	
Press.	Temp.	Sal.	SIG-T
5	15.159	34.175	25.302
10	15.126	34.030	25.197
20	15.207	34.378	25.448
30	15.024	34.359	25.474
40	14.977	34.355	25.481
50	14.874	34.353	25.502
75	13.650	34.411	25.805
100	12.926	34.410	25.951
125	12.447	34.385	26.026
150	12.370	34.379	26.036
200	11.906	34.352	26.105
250	10.981	34.272	26.213
300	9.847	34.173	26.332
400	7.529	33.999	26.556
500	5.392	33.951	26.798
600	4.934	34.019	26.905
700	4.291	34.145	27.076
800	3.770	34.238	27.203
900	3.548	34.278	27.257

Station		OS08055	
Longitude		38-20.0N	
Latitude		170-19.5E	
Depth(m)		4970	
Press.	Temp.	Sal.	SIG-T
5	15.038	34.304	25.428
10	15.038	34.316	25.437
20	15.038	34.326	25.445
30	14.786	34.311	25.488
40	14.437	34.312	25.564
50	13.859	34.334	25.702
75	13.028	34.374	25.903
100	12.500	34.361	25.997
125	12.134	34.342	26.053
150	11.758	34.311	26.100
200	11.448	34.291	26.142
250	10.703	34.226	26.226
300	9.810	34.150	26.321
400	7.946	34.014	26.508
500	6.031	33.929	26.703
600	4.942	33.991	26.882
700	4.319	34.123	27.055
800	3.904	34.212	27.169
900	3.589	34.282	27.256
1000	3.439	34.314	27.296
1200	3.167	34.367	27.364
1500	2.452	34.487	27.524

Station		OS08056	
Longitude		38-40.0N	
Latitude		170-21.4E	
Depth(m)		6293	
Press.	Temp.	Sal.	SIG-T
5	14.187	34.362	25.655
10	14.186	34.375	25.666
20	14.179	34.383	25.673
30	14.158	34.384	25.679
40	13.940	34.364	25.709
50	13.696	34.357	25.754
75	13.321	34.352	25.827
100	12.618	34.371	25.982
125	12.374	34.373	26.031
150	12.082	34.350	26.069
200	11.706	34.334	26.128
250	11.367	34.308	26.170
300	10.946	34.274	26.220
400	9.513	34.148	26.368
500	6.672	33.985	26.664
600	5.219	33.985	26.845
700	4.643	34.066	26.975
800	4.286	34.166	27.093
900	3.897	34.253	27.203
1000	3.597	34.310	27.278
1200	3.043	34.405	27.406
1500	2.495	34.503	27.533

Station		OS08057	
Longitude		39-00.9N	
Latitude		170-20.5E	
Depth(m)		6250	
Press.	Temp.	Sal.	SIG-T
5	15.127	34.372	25.461
10	14.931	34.371	25.503
20	14.841	34.367	25.520
30	14.294	34.361	25.632
40	14.001	34.345	25.682
50	13.735	34.341	25.733
75	13.377	34.350	25.814
100	13.244	34.421	25.896
125	12.479	34.360	26.000
150	12.112	34.340	26.056
200	11.641	34.303	26.116
250	10.980	34.252	26.197
300	10.440	34.217	26.266
400	8.867	34.073	26.414
500	6.893	33.971	26.623
600	5.431	33.970	26.808
700	4.777	34.035	26.936
800	4.313	34.129	27.060
900	3.977	34.200	27.152
1000	3.565	34.277	27.255
1200	3.056	34.369	27.376
1500	2.568	34.457	27.490
2000	2.061	34.555	27.611
2500	1.764	34.611	27.679
3000	1.595	34.642	27.716

Station		OS08058	
Longitude		39-25.0N	
Latitude		170-22.5E	
Depth(m)		6189	
Press.	Temp.	Sal.	SIG-T
5	14.089	34.361	25.675
10	14.070	34.370	25.686
20	13.841	34.365	25.730
30	13.809	34.370	25.741
40	13.781	34.364	25.742
50	13.603	34.354	25.771
75	13.142	34.359	25.868
100	12.574	34.366	25.987
125	12.228	34.362	26.051
150	11.946	34.341	26.088
200	11.655	34.326	26.131
250	11.195	34.288	26.186
300	10.404	34.219	26.273
400	8.343	34.064	26.488
500	6.282	33.978	26.709
600	5.217	34.016	26.870
700	4.535	34.115	27.026
800	4.059	34.221	27.160
900	3.730	34.280	27.241
1000	3.429	34.346	27.323
1200	2.947	34.417	27.425
1500	2.498	34.517	27.544

Station		OS08059	
Longitude		39-50.0N	
Latitude		170-24.0E	
Depth(m)		6290	
Press.	Temp.	Sal.	SIG-T
5	14.161	34.393	25.685
10	14.123	34.409	25.705
20	13.936	34.447	25.774
30	13.824	34.460	25.807
40	13.758	34.462	25.822
50	12.887	34.442	25.984
75	12.021	34.368	26.095
100	11.508	34.343	26.172
125	11.280	34.332	26.205
150	9.797	34.093	26.278
200	8.865	34.037	26.386
250	8.368	34.017	26.447
300	7.812	33.991	26.509
400	5.581	33.907	26.741
500	4.823	34.001	26.903
600	4.241	34.099	27.044
700	4.009	34.207	27.154
800	3.769	34.263	27.223
900	3.478	34.322	27.299
1000	3.217	34.374	27.365
1200	2.711	34.469	27.487
1500	2.356	34.540	27.574

Station		OS08060	
Longitude		40-15.4N	
Latitude		170-24.6E	
Depth(m)		3022	
Press.	Temp.	Sal.	SIG-T
5	10.317	34.033	26.143
10	9.964	34.043	26.211
20	9.707	34.064	26.271
30	9.641	34.078	26.292
40	9.498	34.080	26.318
50	9.413	34.072	26.325
75	9.080	34.055	26.366
100	8.765	34.039	26.403
125	8.583	34.024	26.419
150	8.488	34.027	26.436
200	8.373	34.031	26.457
250	7.960	34.015	26.506
300	6.974	33.971	26.612
400	5.466	33.959	26.796
500	4.607	34.023	26.945
600	4.120	34.138	27.088
700	4.020	34.221	27.165
800	3.740	34.285	27.244
900	3.349	34.364	27.345
1000	2.955	34.435	27.438
1200	2.671	34.490	27.507
1500	2.337	34.556	27.589

Station		OS08061	
Longitude		40-27.5N	
Latitude		170-25.0E	
Depth(m)		1501	
Press.	Temp.	Sal.	SIG-T
5	12.127	34.062	25.837
10	11.790	34.052	25.893
20	10.391	33.983	26.091
30	9.914	33.973	26.165
40	9.748	33.991	26.207
50	9.653	34.023	26.247
75	9.355	34.025	26.298
100	8.859	33.994	26.353
125	8.655	33.975	26.370
150	8.583	33.976	26.382
200	8.440	33.977	26.404
250	8.390	33.993	26.424
300	7.800	33.968	26.493
400	6.067	33.883	26.662
500	4.981	33.931	26.830
600	4.409	34.052	26.989
700	4.061	34.159	27.111
800	3.767	34.221	27.190
900	3.546	34.273	27.253
1000	3.208	34.332	27.333
1200	2.835	34.403	27.423

Station		OS08062	
Longitude		40-60.0N	
Latitude		170-23.9E	
Depth(m)		1244	
Press.	Temp.	Sal.	SIG-T
5	11.007	33.970	25.973
10	10.366	33.995	26.105
20	10.068	33.988	26.151
30	9.893	34.012	26.199
40	9.788	34.029	26.230
50	9.731	34.036	26.245
75	9.380	34.035	26.302
100	8.885	34.001	26.354
125	8.625	33.985	26.382
150	8.580	33.988	26.392
200	8.433	33.993	26.418
250	8.389	34.011	26.439
300	7.938	33.992	26.492
400	6.168	33.924	26.681
500	5.002	33.959	26.850
600	4.421	34.070	27.002
700	4.052	34.178	27.127
800	3.791	34.255	27.215
900	3.470	34.319	27.297
1000	3.229	34.355	27.349
1200	2.804	34.443	27.458

Station		OS08063	
Longitude		41-29.9N	
Latitude		170-21.9E	
Depth(m)		3180	
Press.	Temp.	Sal.	SIG-T
5	12.229	34.326	26.022
10	12.169	34.342	26.046
20	12.110	34.347	26.061
30	12.054	34.343	26.069
40	11.809	34.315	26.094
50	11.584	34.299	26.123
75	10.213	34.081	26.198
100	10.528	34.229	26.259
125	10.045	34.189	26.311
150	9.772	34.181	26.351
200	8.488	34.006	26.420
250	8.279	34.020	26.463
300	7.638	33.987	26.531
400	5.671	33.933	26.750
500	4.844	33.989	26.892
600	4.429	34.081	27.010
700	4.101	34.177	27.121
800	3.861	34.248	27.202
900	3.571	34.315	27.284
1000	3.270	34.375	27.361
1200	2.866	34.438	27.449
1500	2.438	34.528	27.558

Station		OS08064	
Longitude		42-00.4N	
Latitude		170-19.9E	
Depth(m)		2770	
Press.	Temp.	Sal.	SIG-T
5	13.397	34.367	25.823
10	13.352	34.359	25.826
20	12.850	34.297	25.879
30	12.459	34.313	25.968
40	12.570	34.364	25.986
50	12.371	34.351	26.014
75	11.945	34.341	26.088
100	11.210	34.279	26.177
125	10.860	34.260	26.224
150	10.376	34.217	26.277
200	9.097	34.092	26.392
250	7.978	33.967	26.466
300	7.061	33.950	26.583
400	5.745	33.948	26.753
500	4.614	33.965	26.898
600	4.329	34.052	26.998
700	4.091	34.150	27.101
800	3.787	34.224	27.190
900	3.494	34.285	27.268
1000	3.253	34.330	27.327
1200	2.856	34.400	27.419
1500	2.435	34.477	27.518
2000	2.042	34.556	27.613
2500	1.772	34.610	27.677

Station		OS08065	
Longitude		42-30.0N	
Latitude		170-20.0E	
Depth(m)		1687	
Press.	Temp.	Sal.	SIG-T
5	12.026	34.276	26.022
10	11.674	34.205	26.033
20	10.878	34.092	26.091
30	11.339	34.283	26.156
40	11.198	34.304	26.198
50	10.963	34.269	26.213
75	10.188	34.196	26.292
100	9.858	34.175	26.332
125	9.334	34.133	26.386
150	8.612	34.056	26.440
200	7.750	33.975	26.506
250	7.154	33.974	26.590
300	5.731	33.889	26.708
400	4.659	33.949	26.880
500	4.381	34.096	27.027
600	4.053	34.201	27.145
700	3.762	34.258	27.220
800	3.522	34.325	27.297
900	3.271	34.371	27.358
1000	3.059	34.403	27.403
1200	2.746	34.458	27.475
1500	2.400	34.522	27.556

Station		OS08066	
Longitude		43-00.6N	
Latitude		170-20.1E	
Depth(m)		1642	
Press.	Temp.	Sal.	SIG-T
5	9.969	33.709	25.950
10	9.884	33.777	26.017
20	9.858	33.864	26.089
30	9.865	33.932	26.141
40	9.581	33.959	26.209
50	9.298	33.990	26.280
75	8.669	34.013	26.398
100	7.367	33.838	26.453
125	6.775	33.812	26.514
150	6.736	33.829	26.532
200	5.276	33.788	26.683
250	4.947	33.860	26.778
300	4.539	33.910	26.862
400	4.482	34.042	26.973
500	4.283	34.180	27.104
600	3.935	34.254	27.199
700	3.555	34.327	27.296
800	3.372	34.362	27.341
900	3.062	34.409	27.408
1000	2.839	34.462	27.470
1200	2.555	34.517	27.539
1500	2.250	34.557	27.597

Station		OS08067	
Longitude		43-31.3N	
Latitude		170-20.9E	
Depth(m)		4300	
Press.	Temp.	Sal.	SIG-T
5	7.958	32.941	25.664
10	7.266	32.939	25.760
20	6.199	32.935	25.896
30	4.984	32.937	26.042
40	4.132	32.938	26.133
50	3.487	32.957	26.210
75	2.632	32.978	26.302
100	2.299	32.998	26.345
125	2.233	33.117	26.446
150	2.925	33.466	26.667
200	3.176	33.676	26.813
250	3.441	33.831	26.912
300	3.519	33.914	26.970
400	3.514	34.046	27.076
500	3.437	34.137	27.156
600	3.259	34.203	27.225
700	3.168	34.240	27.263
800	3.043	34.297	27.320
900	2.849	34.353	27.382
1000	2.682	34.396	27.431
1200	2.382	34.467	27.514
1500	2.114	34.531	27.587
2000	2.000	34.563	27.621
2500	1.678	34.623	27.695
3000	1.565	34.647	27.722

Station		OS08068	
Longitude		43-59.9N	
Latitude		170-20.2E	
Depth(m)		4351	
Press.	Temp.	Sal.	SIG-T
5	7.341	32.860	25.687
10	7.170	32.867	25.716
20	5.350	32.894	25.966
30	4.864	32.909	26.033
40	4.342	32.922	26.099
50	3.664	32.916	26.161
75	2.767	32.972	26.286
100	2.431	33.028	26.359
125	2.645	33.302	26.560
150	3.110	33.634	26.785
200	3.299	33.774	26.879
250	3.428	33.879	26.951
300	3.483	33.965	27.014
400	3.443	34.120	27.141
500	3.332	34.209	27.223
600	3.231	34.251	27.266
700	3.050	34.310	27.330
800	2.888	34.362	27.386
900	2.726	34.406	27.435
1000	2.584	34.450	27.483
1200	2.360	34.500	27.542
1500	2.064	34.575	27.626

Station		OS08069	
Longitude		44-29.8N	
Latitude		170-21.1E	
Depth(m)		1168	
Press.	Temp.	Sal.	SIG-T
5	4.065	32.962	26.159
10	3.942	32.978	26.184
20	3.673	32.984	26.215
30	3.292	33.028	26.285
40	3.030	33.096	26.363
50	2.979	33.117	26.384
75	2.925	33.395	26.611
100	2.999	33.527	26.709
125	3.161	33.704	26.836
150	3.281	33.807	26.907
200	3.455	33.950	27.005
250	3.492	34.061	27.090
300	3.492	34.079	27.104
400	3.400	34.192	27.203
500	3.281	34.262	27.270
600	3.050	34.344	27.357
700	2.807	34.424	27.443
800	2.524	34.485	27.516
900	2.422	34.519	27.552
1000	2.419	34.514	27.548

Station		OS08070	
Longitude		44-59.8N	
Latitude		170-21.4E	
Depth(m)		3207	
Press.	Temp.	Sal.	SIG-T
5	6.534	32.882	25.812
10	6.288	32.896	25.855
20	5.195	32.912	25.998
30	4.845	32.924	26.047
40	4.627	32.930	26.075
50	4.270	32.946	26.125
75	3.260	33.111	26.354
100	3.170	33.326	26.534
125	3.049	33.484	26.671
150	3.039	33.612	26.774
200	3.258	33.786	26.893
250	3.431	33.898	26.966
300	3.506	33.979	27.023
400	3.472	34.093	27.117
500	3.361	34.209	27.220
600	3.180	34.279	27.293
700	3.019	34.333	27.351
800	2.861	34.377	27.400
900	2.703	34.420	27.449
1000	2.553	34.466	27.498
1200	2.370	34.510	27.549
1500	2.087	34.589	27.636

Station		OS08071	
Longitude		45-30.0N	
Latitude		170-19.9E	
Depth(m)		5330	
Press.	Temp.	Sal.	SIG-T
5	6.937	32.872	25.751
10	6.923	32.882	25.761
20	6.346	32.893	25.845
30	5.614	32.917	25.954
40	5.220	32.914	25.997
50	4.621	32.924	26.071
75	3.319	32.989	26.252
100	2.699	33.111	26.403
125	2.811	33.273	26.523
150	2.932	33.460	26.662
200	3.113	33.648	26.796
250	3.365	33.815	26.906
300	3.475	33.925	26.983
400	3.485	34.076	27.102
500	3.404	34.164	27.180
600	3.224	34.241	27.259
700	3.061	34.302	27.322
800	2.871	34.357	27.383
900	2.721	34.390	27.423
1000	2.588	34.425	27.463
1200	2.334	34.476	27.525
1500	2.119	34.537	27.591

Station		OS08072	
Longitude		49-59.8N	
Latitude		174-59.6E	
Depth(m)		4706	
Press.	Temp.	Sal.	SIG-T
5	6.438	32.687	25.671
10	6.288	32.708	25.706
20	5.673	32.775	25.834
30	4.933	32.829	25.962
40	4.317	32.873	26.062
50	3.978	32.894	26.113
75	3.387	32.957	26.220
100	3.477	33.065	26.298
125	3.635	33.622	26.726
150	3.749	33.769	26.832
200	3.759	33.902	26.937
250	3.568	33.939	26.985
300	3.759	34.042	27.048
400	3.537	34.138	27.147
500	3.367	34.230	27.236
600	3.166	34.285	27.299
700	3.025	34.340	27.356
800	2.893	34.382	27.401
900	2.731	34.429	27.453
1000	2.599	34.464	27.493
1200	2.364	34.523	27.560
1500	2.089	34.596	27.641

Station		OS08073	
Longitude		50-20.0N	
Latitude		175-18.1E	
Depth(m)		4666	
Press.	Temp.	Sal.	SIG-T
5	6.449	32.555	25.565
10	6.406	32.555	25.571
20	5.261	32.786	25.891
30	5.011	32.899	26.009
40	3.504	32.843	26.118
50	3.467	32.925	26.187
75	3.338	32.981	26.244
100	2.853	33.163	26.432
125	3.896	33.650	26.723
150	4.018	33.781	26.815
200	3.554	33.831	26.901
250	3.567	33.893	26.948
300	3.739	34.019	27.032
400	3.689	34.115	27.113
500	3.508	34.192	27.193
600	3.287	34.245	27.256
700	3.094	34.299	27.317
800	2.922	34.338	27.364
900	2.783	34.377	27.407
1000	2.633	34.412	27.448
1200	2.382	34.468	27.514
1500	2.100	34.530	27.587
2000	1.800	34.593	27.661
2500	1.635	34.630	27.704
3000	1.542	34.650	27.726

Station		OS08074	
Longitude		50-39.7N	
Latitude		175-35.8E	
Depth(m)		5590	
Press.	Temp.	Sal.	SIG-T
5	6.277	32.642	25.656
10	6.267	32.658	25.669
20	5.178	32.719	25.847
30	4.088	32.822	26.045
40	3.665	32.907	26.154
50	3.846	33.087	26.280
75	4.046	33.397	26.507
100	4.094	33.573	26.642
125	4.155	33.701	26.737
150	4.076	33.775	26.804
200	4.016	33.899	26.909
250	3.951	33.976	26.977
300	3.906	34.048	27.039
400	3.577	34.116	27.125
500	3.376	34.209	27.219
600	3.208	34.276	27.288
700	3.093	34.313	27.328
800	2.933	34.363	27.383
900	2.772	34.396	27.423
1000	2.630	34.435	27.467
1200	2.346	34.497	27.541
1500	2.101	34.561	27.612

Station		OS08075	
Longitude		50-60.0N	
Latitude		175-54.0E	
Depth(m)		7190	
Press.	Temp.	Sal.	SIG-T
5	6.695	32.596	25.566
10	6.695	32.596	25.566
20	5.905	32.797	25.824
30	4.346	32.893	26.075
40	3.781	32.912	26.147
50	3.680	32.920	26.163
75	3.879	33.075	26.267
100	3.861	33.276	26.428
125	4.183	33.530	26.598
150	3.988	33.691	26.746
200	4.176	33.879	26.877
250	3.636	33.901	26.948
300	3.687	33.981	27.007
400	3.586	34.087	27.101
500	3.560	34.184	27.181
600	3.234	34.238	27.255
700	3.171	34.297	27.308
800	2.940	34.334	27.359
900	2.823	34.366	27.395
1000	2.691	34.399	27.433
1200	2.442	34.456	27.500
1500	2.140	34.523	27.579
2000	1.837	34.587	27.654
2500	1.659	34.624	27.696
3000	1.550	34.646	27.722

Station		OS08076	
Longitude		51-20.1N	
Latitude		176-11.9E	
Depth(m)		5020	
Press.	Temp.	Sal.	SIG-T
5	5.847	32.833	25.859
10	5.847	32.845	25.869
20	5.092	32.941	26.033
30	4.122	33.097	26.260
40	4.029	33.156	26.317
50	3.970	33.187	26.347
75	3.910	33.244	26.398
100	3.780	33.289	26.447
125	3.750	33.308	26.465
150	3.683	33.334	26.492
200	3.770	33.474	26.595
250	3.810	33.581	26.676
300	3.863	33.662	26.736
400	3.870	33.890	26.916
500	3.810	34.045	27.046
600	3.630	34.128	27.130
700	3.479	34.198	27.200
800	3.370	34.254	27.255
900	3.077	34.292	27.313
1000	3.006	34.342	27.359
1200	2.712	34.407	27.437
1500	2.171	34.527	27.579

Station		OS08077	
Longitude		51-39.9N	
Latitude		176-30.1E	
Depth(m)		3921	
Press.	Temp.	Sal.	SIG-T
5	5.341	32.978	26.034
10	5.274	32.989	26.050
20	4.337	33.114	26.252
30	4.028	33.157	26.317
40	3.949	33.186	26.349
50	3.874	33.209	26.374
75	3.814	33.259	26.420
100	3.762	33.300	26.457
125	3.833	33.362	26.500
150	3.828	33.384	26.518
200	3.831	33.426	26.551
250	3.827	33.514	26.621
300	4.012	33.626	26.692
400	3.897	33.776	26.823
500	3.844	33.896	26.924
600	3.808	34.026	27.031
700	3.599	34.145	27.146
800	3.377	34.218	27.226
900	3.151	34.287	27.302
1000	3.023	34.326	27.345
1200	2.753	34.397	27.426
1500	2.303	34.501	27.547
2000	1.908	34.586	27.647
2500	1.704	34.626	27.695
3000	1.561	34.658	27.731

Station		OS08078	
Longitude		53-25.0N	
Latitude		178-00.1E	
Depth(m)		3893	
Press.	Temp.	Sal.	SIG-T
5	5.482	33.052	26.076
10	5.464	33.051	26.077
20	5.088	33.028	26.103
30	4.057	33.046	26.227
40	3.331	33.064	26.310
50	3.198	33.088	26.341
75	3.033	33.165	26.417
100	2.816	33.246	26.501
125	2.940	33.319	26.549
150	3.307	33.431	26.605
200	3.930	33.686	26.748
250	3.959	33.806	26.841
300	3.886	33.892	26.916
400	3.744	34.025	27.036
500	3.630	34.105	27.111
600	3.479	34.172	27.180
700	3.316	34.240	27.249
800	3.162	34.285	27.299
900	3.004	34.327	27.347
1000	2.871	34.360	27.386
1200	2.622	34.420	27.456
1500	2.266	34.500	27.550
2000	1.906	34.581	27.643

Station		OS08079	
Longitude		53-25.1N	
Latitude		178-29.9E	
Depth(m)		3190	
Press.	Temp.	Sal.	SIG-T
5	5.557	33.073	26.084
10	5.557	33.073	26.084
20	5.154	33.095	26.148
30	4.658	33.102	26.208
40	3.462	33.140	26.359
50	3.191	33.211	26.440
75	2.766	33.249	26.508
100	2.694	33.284	26.542
125	2.553	33.308	26.573
150	3.181	33.441	26.625
200	3.934	33.731	26.783
250	3.884	33.862	26.893
300	3.814	33.964	26.981
400	3.674	34.093	27.097
500	3.513	34.180	27.183
600	3.392	34.243	27.244
700	3.292	34.282	27.285
800	3.171	34.329	27.334
900	2.999	34.380	27.390
1000	2.847	34.420	27.436
1200	2.553	34.493	27.520
1500	2.216	34.580	27.618

Station		OS08080	
Longitude		53-24.8N	
Latitude		178-59.7E	
Depth(m)		2891	
Press.	Temp.	Sal.	SIG-T
5	5.547	33.075	26.087
10	5.548	33.075	26.087
20	4.908	33.075	26.160
30	4.782	33.092	26.187
40	4.045	33.124	26.290
50	3.328	33.173	26.397
75	2.693	33.227	26.496
100	2.659	33.258	26.524
125	2.745	33.298	26.548
150	3.180	33.400	26.592
200	3.948	33.658	26.724
250	3.953	33.770	26.813
300	3.903	33.867	26.895
400	3.766	33.990	27.007
500	3.628	34.089	27.099
600	3.490	34.147	27.158
700	3.359	34.209	27.221
800	3.211	34.259	27.274
900	3.062	34.298	27.319
1000	2.928	34.336	27.361
1200	2.669	34.398	27.434
1500	2.285	34.485	27.536
2000	1.886	34.573	27.638
2500	1.692	34.618	27.689

Station		OS08081	
Longitude		53-25.0N	
Latitude		179-29.8E	
Depth(m)		2763	
Press.	Temp.	Sal.	SIG-T
5	5.547	33.126	26.127
10	5.537	33.132	26.133
20	5.489	33.141	26.146
30	4.263	33.142	26.282
40	3.566	33.199	26.396
50	3.807	33.267	26.427
75	3.417	33.287	26.480
100	3.286	33.333	26.529
125	3.288	33.369	26.557
150	2.843	33.339	26.573
200	3.715	33.605	26.705
250	3.895	33.751	26.803
300	3.847	33.994	27.001
400	3.807	34.644	27.523
500	3.627	34.818	27.680
600	3.527	34.645	27.552
700	3.397	34.447	27.407
800	3.268	34.507	27.467
900	3.135	34.556	27.518
1000	3.023	34.569	27.539
1200	2.762	34.818	27.762
1500	2.121	34.798	27.800

Station		OS08082	
Longitude		53-25.0N	
Latitude		179-59.9W	
Depth(m)		827	
Press.	Temp.	Sal.	SIG-T
5	5.795	33.009	26.005
10	5.785	33.021	26.015
20	5.707	33.041	26.041
30	5.185	33.089	26.140
40	4.402	33.167	26.287
50	3.696	33.206	26.389
75	3.381	33.271	26.471
100	3.393	33.330	26.517
125	2.834	33.317	26.556
150	3.512	33.437	26.591
200	3.557	33.521	26.653
250	3.723	33.617	26.714
300	3.888	33.796	26.840
400	3.803	33.975	26.991
500	3.682	34.083	27.089
600	3.542	34.157	27.161
700	3.381	34.228	27.233
800	3.282	24.305	19.341

Station		OS08083	
Longitude		53-24.9N	
Latitude		179-30.0W	
Depth(m)		1322	
Press.	Temp.	Sal.	SIG-T
5	5.422	33.063	26.092
10	5.422	33.069	26.096
20	5.274	33.076	26.119
30	4.151	33.092	26.253
40	3.492	33.171	26.381
50	3.282	33.186	26.412
75	2.795	33.225	26.486
100	2.683	33.264	26.527
125	2.490	33.277	26.553
150	2.592	33.301	26.564
200	3.734	33.574	26.678
250	3.839	33.661	26.737
300	3.904	33.788	26.832
400	3.743	33.979	27.000
500	3.613	34.093	27.103
600	3.462	34.161	27.172
700	3.341	34.232	27.240
800	3.099	34.304	27.320
900	2.978	34.344	27.363
1000	2.815	34.387	27.412
1200	2.631	34.428	27.461

Station		OS08084	
Longitude		53-24.7N	
Latitude		179-00.9W	
Depth(m)		3740	
Press.	Temp.	Sal.	SIG-T
5	5.521	33.109	26.117
10	5.520	33.109	26.117
20	5.466	33.111	26.124
30	4.590	33.134	26.241
40	4.337	33.153	26.283
50	3.689	33.180	26.369
75	3.015	33.235	26.475
100	2.749	33.268	26.524
125	2.878	33.314	26.550
150	3.202	33.384	26.577
200	3.728	33.574	26.679
250	3.723	33.694	26.775
300	3.814	33.808	26.857
400	3.777	33.965	26.986
500	3.634	34.068	27.082
600	3.521	34.129	27.141
700	3.360	34.196	27.210
800	3.211	34.244	27.262
900	3.070	34.293	27.315
1000	2.918	34.332	27.359
1200	2.663	34.394	27.431
1500	2.337	34.472	27.522
2000	1.916	34.567	27.631

Station		OS08085	
Longitude		53-25.0N	
Latitude		178-30.1W	
Depth(m)		3802	
Press.	Temp.	Sal.	SIG-T
5	5.930	32.984	25.969
10	5.911	33.013	25.994
20	5.137	33.034	26.102
30	4.139	33.117	26.275
40	3.625	33.134	26.339
50	3.364	33.188	26.406
75	3.444	33.281	26.473
100	3.385	33.338	26.524
125	3.444	33.383	26.554
150	3.484	33.424	26.583
200	3.585	33.501	26.635
250	3.735	33.598	26.697
300	3.855	33.753	26.809
400	3.826	33.930	26.953
500	3.665	34.039	27.055
600	3.524	34.131	27.142
700	3.374	34.216	27.225
800	3.200	34.270	27.284
900	3.031	34.316	27.336
1000	2.899	34.368	27.390
1200	2.646	34.433	27.464
1500	2.320	34.526	27.566

Station		OS08086	
Longitude		53-25.0N	
Latitude		177-59.8W	
Depth(m)		3787	
Press.	Temp.	Sal.	SIG-T
5	6.046	33.138	26.076
10	6.043	33.138	26.076
20	5.205	33.145	26.181
30	4.221	33.157	26.298
40	3.811	33.168	26.348
50	3.606	33.193	26.388
75	2.823	33.202	26.465
100	3.144	33.271	26.492
125	2.492	33.236	26.520
150	2.500	33.245	26.527
200	3.725	33.487	26.610
250	3.712	33.579	26.684
300	3.817	33.701	26.771
400	3.664	33.867	26.918
500	3.643	34.008	27.033
600	3.516	34.093	27.113
700	3.394	34.166	27.182
800	3.270	34.217	27.235
900	3.106	34.270	27.293
1000	2.966	34.308	27.336
1200	2.724	34.374	27.410
1500	2.380	34.462	27.510
2000	1.938	34.563	27.626

Station		OS08087	
Longitude		53-26.1N	
Latitude		177-00.2W	
Depth(m)		3780	
Press.	Temp.	Sal.	SIG-T
5	5.497	33.173	26.170
10	5.497	33.173	26.170
20	5.485	33.174	26.172
30	4.840	33.187	26.256
40	4.315	33.199	26.322
50	3.283	33.215	26.435
75	2.725	33.216	26.485
100	2.466	33.214	26.504
125	2.338	33.219	26.519
150	2.314	33.231	26.531
200	3.022	33.381	26.591
250	3.887	33.611	26.693
300	3.933	33.751	26.799
400	3.786	33.931	26.957
500	3.652	34.047	27.063
600	3.514	34.132	27.144
700	3.360	34.191	27.206
800	3.225	34.245	27.261
900	3.076	34.288	27.310
1000	2.953	34.322	27.348
1200	2.684	34.389	27.426
1500	2.332	34.472	27.522
2000	1.916	34.566	27.630
2500	1.719	34.613	27.683
3000	1.623	34.638	27.711

Station		OS08088	
Longitude		51-10.1N	
Latitude		179-43.1W	
Depth(m)		3667	
Press.	Temp.	Sal.	SIG-T
5	6.395	32.611	25.616
10	6.366	32.613	25.622
20	6.059	32.658	25.696
30	5.515	32.735	25.821
40	5.102	32.779	25.903
50	4.466	32.864	26.040
75	4.544	33.107	26.224
100	4.341	33.258	26.366
125	4.325	33.385	26.468
150	4.798	33.526	26.530
200	4.124	33.593	26.655
250	4.321	33.727	26.741
300	4.139	33.794	26.813
400	4.145	33.947	26.934
500	4.007	34.016	27.002
600	3.740	34.107	27.102
700	3.605	34.179	27.173
800	3.430	34.239	27.238
900	3.269	34.281	27.286
1000	3.071	34.328	27.342
1200	2.731	34.400	27.430
1500	2.395	34.471	27.516
2000	1.987	34.559	27.620
2500	1.739	34.610	27.680
3000	1.591	34.639	27.714

Station		OS08089	
Longitude		50-50.4N	
Latitude		179-46.1W	
Depth(m)		5450	
Press.	Temp.	Sal.	SIG-T
5	5.882	32.638	25.701
10	5.627	32.621	25.719
20	5.459	32.696	25.797
30	4.477	32.722	25.926
40	4.112	32.825	26.045
50	4.120	32.913	26.115
75	4.307	33.121	26.261
100	4.610	33.411	26.458
125	4.711	33.504	26.521
150	4.779	33.611	26.599
200	4.276	33.693	26.718
250	4.339	33.784	26.784
300	4.237	33.858	26.853
400	4.012	33.993	26.984
500	3.804	34.076	27.071
600	3.663	34.158	27.150
700	3.459	34.218	27.218
800	3.264	34.262	27.272
900	3.076	34.309	27.327
1000	2.937	34.344	27.367
1200	2.661	34.414	27.448
1500	2.349	34.481	27.528
2000	1.936	34.569	27.631
2500	1.721	34.614	27.684
3000	1.584	34.641	27.716

Station		OS08090	
Longitude		50-25.1N	
Latitude		179-50.0W	
Depth(m)		6505	
Press.	Temp.	Sal.	SIG-T
5	7.217	32.632	25.525
10	7.087	32.633	25.543
20	6.728	32.637	25.594
30	6.701	32.638	25.598
40	4.578	32.691	25.891
50	3.841	32.770	26.028
75	3.338	32.941	26.212
100	3.727	33.223	26.400
125	4.146	33.567	26.632
150	4.190	33.715	26.745
200	3.910	33.829	26.864
250	3.912	33.928	26.943
300	3.928	34.007	27.004
400	3.633	34.096	27.104
500	3.532	34.180	27.180
600	3.339	34.248	27.254
700	3.139	34.296	27.310
800	2.969	34.337	27.359
900	2.823	34.370	27.398
1000	2.700	34.398	27.431
1200	2.425	34.459	27.504
1500	2.150	34.521	27.576
2000	1.851	34.585	27.651
2500	1.645	34.626	27.699
3000	1.546	34.646	27.723

Station		OS08091	
Longitude		50-05.0N	
Latitude		179-55.0W	
Depth(m)		5979	
Press.	Temp.	Sal.	SIG-T
5	7.029	32.636	25.553
10	6.553	32.651	25.628
20	6.266	32.658	25.670
30	6.191	32.660	25.680
40	4.618	32.724	25.913
50	3.909	32.778	26.028
75	3.407	33.015	26.264
100	3.906	33.400	26.523
125	4.127	33.604	26.663
150	4.172	33.759	26.781
200	4.035	33.855	26.872
250	3.934	33.942	26.951
300	3.872	33.998	27.002
400	3.653	34.106	27.110
500	3.506	34.172	27.177
600	3.324	34.250	27.256
700	3.094	34.308	27.324
800	2.896	34.354	27.379
900	2.747	34.387	27.418
1000	2.597	34.420	27.458
1200	2.348	34.475	27.523
1500	2.086	34.533	27.591
2000	1.804	34.593	27.661
2500	1.630	34.629	27.703
3000	1.531	34.649	27.727

Station		OS08092	
Longitude		49-44.9N	
Latitude		179-59.9W	
Depth(m)		5161	
Press.	Temp.	Sal.	SIG-T
5	6.723	32.594	25.561
10	6.716	32.617	25.580
20	6.316	32.665	25.669
30	6.347	32.743	25.726
40	4.143	32.646	25.900
50	3.263	32.713	26.037
75	3.567	33.150	26.357
100	4.173	33.580	26.639
125	4.143	33.710	26.745
150	4.183	33.826	26.834
200	4.063	33.940	26.937
250	4.004	34.008	26.997
300	3.844	34.059	27.054
400	3.704	34.158	27.146
500	3.524	34.240	27.229
600	3.263	34.287	27.292
700	3.083	34.344	27.354
800	2.920	34.384	27.401
900	2.748	34.431	27.454
1000	2.616	34.463	27.491
1200	2.370	34.528	27.564
1500	2.087	34.592	27.638

Station		OS08093	
Longitude		49-30.2N	
Latitude		179-59.8W	
Depth(m)		4965	
Press.	Temp.	Sal.	SIG-T
5	7.532	32.674	25.514
10	6.920	32.700	25.618
20	6.696	32.697	25.646
30	5.254	32.763	25.874
40	4.052	32.862	26.080
50	3.530	32.877	26.143
75	3.466	32.996	26.244
100	3.685	33.324	26.484
125	3.831	33.509	26.617
150	3.858	33.643	26.721
200	3.404	33.749	26.850
250	3.497	33.848	26.920
300	3.537	33.915	26.969
400	3.560	34.054	27.077
500	3.480	34.144	27.157
600	3.316	34.226	27.238
700	3.114	34.286	27.305
800	2.983	34.323	27.346
900	2.826	34.364	27.393
1000	2.684	34.398	27.433
1200	2.449	34.453	27.496
1500	2.169	34.517	27.572
2000	1.865	34.584	27.649
2500	1.673	34.622	27.694
3000	1.558	34.646	27.722

Station		OS08094	
Longitude		49-01.9N	
Latitude		174-02.0W	
Depth(m)		5335	
Press.	Temp.	Sal.	SIG-T
5	7.687	32.788	25.582
10	7.685	32.788	25.583
20	7.680	32.789	25.584
30	6.345	32.815	25.784
40	4.803	32.837	25.983
50	4.462	32.844	26.024
75	3.964	32.867	26.093
100	3.642	32.912	26.161
125	3.290	33.150	26.383
150	3.185	33.539	26.702
200	3.295	33.723	26.839
250	3.468	33.835	26.912
300	3.550	33.909	26.963
400	3.604	34.043	27.064
500	3.502	34.138	27.150
600	3.373	34.206	27.217
700	3.241	34.264	27.275
800	3.052	34.312	27.331
900	2.899	34.349	27.374
1000	2.769	34.381	27.412
1200	2.535	34.437	27.476
1500	2.256	34.499	27.550
2000	1.900	34.577	27.641

Station		OS08095	
Longitude		50-19.9N	
Latitude		172-00.1W	
Depth(m)		5475	
Press.	Temp.	Sal.	SIG-T
5	7.415	32.490	25.386
10	7.412	32.491	25.387
20	7.399	32.491	25.389
30	7.012	32.517	25.462
40	4.047	32.741	25.985
50	4.010	32.805	26.039
75	3.291	32.901	26.184
100	4.198	33.585	26.640
125	4.321	33.767	26.772
150	4.280	33.871	26.859
200	4.145	33.932	26.922
250	4.069	33.994	26.979
300	3.983	34.038	27.023
400	3.732	34.129	27.121
500	3.479	34.186	27.190
600	3.349	34.242	27.248
700	3.186	34.294	27.305
800	3.023	34.332	27.350
900	2.860	34.367	27.393
1000	2.703	34.400	27.433
1200	2.449	34.456	27.499
1500	2.138	34.523	27.579
2000	1.823	34.590	27.657
2500	1.654	34.625	27.698
3000	1.542	34.647	27.724

Station		OS08096	
Longitude		50-40.1N	
Latitude		171-60.0W	
Depth(m)		5820	
Press.	Temp.	Sal.	SIG-T
5	7.312	32.524	25.427
10	7.266	32.590	25.485
20	6.382	32.606	25.614
30	3.954	32.674	25.941
40	3.429	32.702	26.013
50	3.206	32.746	26.068
75	3.100	32.928	26.222
100	3.941	33.478	26.582
125	4.210	33.726	26.751
150	4.220	33.855	26.853
200	4.105	33.947	26.938
250	4.014	34.000	26.989
300	3.918	34.056	27.043
400	3.734	34.138	27.127
500	3.599	34.185	27.179
600	3.407	34.242	27.242
700	3.183	34.295	27.306
800	2.991	34.340	27.359
900	2.818	34.377	27.404
1000	2.645	34.414	27.449
1200	2.375	34.468	27.515
1500	2.135	34.524	27.580
2000	1.836	34.587	27.654
2500	1.635	34.626	27.700
3000	1.525	34.649	27.727

Station		OS08097	
Longitude		51-00.1N	
Latitude		172-00.1W	
Depth(m)		6953	
Press.	Temp.	Sal.	SIG-T
5	7.370	32.484	25.387
10	7.346	32.486	25.393
20	7.244	32.519	25.432
30	5.990	32.572	25.636
40	3.889	32.656	25.933
50	3.342	32.715	26.031
75	3.262	32.956	26.231
100	3.928	33.402	26.522
125	4.245	33.690	26.719
150	4.264	33.848	26.843
200	4.061	33.931	26.930
250	4.015	34.004	26.992
300	3.911	34.057	27.045
400	3.738	34.134	27.124
500	3.539	34.197	27.193
600	3.338	34.252	27.257
700	3.140	34.305	27.317
800	2.985	34.341	27.360
900	2.852	34.371	27.396
1000	2.683	34.407	27.440
1200	2.412	34.464	27.508
1500	2.125	34.526	27.582
2000	1.820	34.588	27.655
2500	1.646	34.624	27.698
3000	1.529	34.648	27.726

Station		OS08098	
Longitude		51-20.0N	
Latitude		171-59.9W	
Depth(m)		4420	
Press.	Temp.	Sal.	SIG-T
5	7.596	32.526	25.389
10	7.570	32.528	25.394
20	7.232	32.564	25.469
30	5.531	32.597	25.711
40	4.168	32.628	25.883
50	3.581	32.671	25.974
75	3.227	32.864	26.160
100	3.876	33.420	26.542
125	4.250	33.815	26.818
150	4.207	33.884	26.878
200	4.110	33.971	26.956
250	3.970	34.036	27.023
300	3.884	34.079	27.066
400	3.675	34.160	27.151
500	3.493	34.228	27.222
600	3.331	34.273	27.274
700	3.178	34.310	27.318
800	3.003	34.349	27.365
900	2.862	34.380	27.403
1000	2.725	34.410	27.439
1200	2.468	34.465	27.504
1500	2.185	34.526	27.577
2000	1.851	34.597	27.661
2500	1.649	34.639	27.709
3000	1.530	34.665	27.739

Station		OS08099	
Longitude		51-40.0N	
Latitude		172-00.0W	
Depth(m)		3626	
Press.	Temp.	Sal.	SIG-T
5	6.831	32.107	25.163
10	6.767	32.132	25.191
20	5.259	32.575	25.724
30	5.013	32.667	25.825
40	4.691	32.700	25.886
50	4.389	32.725	25.937
75	3.681	33.013	26.237
100	4.119	33.639	26.692
125	4.172	33.828	26.836
150	4.223	33.892	26.882
200	4.053	33.935	26.933
250	4.079	34.013	26.993
300	3.937	34.038	27.028
400	3.748	34.130	27.120
500	3.562	34.205	27.198
600	3.416	34.242	27.241
700	3.292	34.274	27.278
800	3.073	34.321	27.337
900	2.885	34.364	27.387
1000	2.757	34.390	27.420
1200	2.523	34.442	27.482
1500	2.220	34.507	27.559
2000	1.911	34.574	27.638
2500	1.713	34.615	27.686
3000	1.585	34.641	27.716

Station		OS08100	
Longitude		51-44.3N	
Latitude		172-00.2W	
Depth(m)		3513	
Press.	Temp.	Sal.	SIG-T
5	6.750	32.170	25.223
10	6.598	32.201	25.267
20	5.637	32.442	25.575
30	4.510	32.728	25.927
40	3.793	32.772	26.034
50	4.212	33.088	26.244
75	4.678	33.264	26.335
100	4.510	33.460	26.508
125	4.786	33.761	26.717
150	4.619	33.875	26.826
200	4.292	33.937	26.910
250	4.113	33.971	26.956
300	4.053	34.026	27.006
400	3.844	34.118	27.100
500	3.684	34.170	27.158
600	3.494	34.237	27.230
700	3.323	34.263	27.267
800	3.062	34.326	27.341
900	3.001	34.353	27.369
1000	2.870	34.383	27.404
1200	2.607	34.444	27.476
1500	2.250	34.531	27.576

Station		OS08101	
Longitude		51-59.8N	
Latitude		172-00.1W	
Depth(m)		157	
Press.	Temp.	Sal.	SIG-T
5	4.145	33.395	26.495
10	4.140	33.404	26.503
20	4.130	33.420	26.516
30	4.132	33.422	26.518
40	4.124	33.456	26.546
50	4.130	33.452	26.542
75	4.120	33.516	26.594
100	4.120	33.582	26.646
125	4.111	33.618	26.676
150	4.120	33.661	26.709

Station		OS08102	
Longitude		54-59.9N	
Latitude		166-00.2W	
Depth(m)		135	
Press.	Temp.	Sal.	SIG-T
5	6.265	32.336	25.415
10	5.847	32.393	25.512
20	5.874	32.575	25.652
30	6.066	32.776	25.787
40	5.389	32.805	25.891
50	4.085	32.672	25.926
75	3.822	32.846	26.090
100	3.489	32.968	26.219
125	3.420	33.109	26.338

Station		OS08103	
Longitude		55-30.0N	
Latitude		166-00.4W	
Depth(m)		120	
Press.	Temp.	Sal.	SIG-T
5	6.665	31.973	25.079
10	6.657	31.973	25.080
20	4.707	31.999	25.328
30	4.162	32.133	25.491
40	4.122	32.232	25.573
50	4.274	32.291	25.604
75	3.872	32.446	25.768
100	3.302	32.778	26.085

Station		OS08104	
Longitude		56-00.0N	
Latitude		165-59.8W	
Depth(m)		113	
Press.	Temp.	Sal.	SIG-T
5	6.705	31.834	24.964
10	6.693	31.836	24.968
20	4.469	31.898	25.273
30	3.906	31.967	25.384
40	3.876	32.078	25.474
50	3.050	32.230	25.670
75	2.935	32.556	25.940
100	3.015	32.713	26.058

Station		OS08105	
Longitude		55-59.9N	
Latitude		167-00.0W	
Depth(m)		133	
Press.	Temp.	Sal.	SIG-T
5	6.563	31.807	24.961
10	6.563	31.808	24.962
20	4.464	31.905	25.279
30	3.802	31.963	25.390
40	3.562	32.091	25.514
50	3.521	32.246	25.641
75	3.304	32.523	25.881
100	3.121	32.755	26.083

Station		OS08106	
Longitude		56-00.2N	
Latitude		168-00.4W	
Depth(m)		137	
Press.	Temp.	Sal.	SIG-T
5	6.578	31.869	25.008
10	6.567	31.870	25.010
20	4.209	31.986	25.369
30	3.864	32.047	25.451
40	2.547	32.302	25.769
50	2.551	32.428	25.870
75	3.363	32.816	26.110
100	3.360	32.819	26.112
125	3.358	32.824	26.116

Station		OS08107	
Longitude		55-59.9N	
Latitude		170-00.3W	
Depth(m)		203	
Press.	Temp.	Sal.	SIG-T
5	6.261	32.726	25.724
10	6.256	32.726	25.725
20	5.308	32.741	25.850
30	3.547	32.987	26.229
40	3.411	33.084	26.319
50	3.345	33.126	26.359
75	3.279	33.196	26.420
100	3.285	33.236	26.452
125	3.273	33.251	26.465
150	3.267	33.258	26.471

Station		OS08108	
Longitude		56-30.1N	
Latitude		169-00.7W	
Depth(m)		101	
Press.	Temp.	Sal.	SIG-T
5	6.117	32.369	25.460
10	5.615	31.814	25.081
20	5.506	31.826	25.104
30	4.478	31.994	25.348
40	4.019	32.034	25.426
50	3.017	32.090	25.562
75	2.559	32.472	25.904

Station		OS08109	
Longitude		56-29.9N	
Latitude		168-00.1W	
Depth(m)		115	
Press.	Temp.	Sal.	SIG-T
5	5.087	31.773	25.108
10	5.072	31.772	25.109
20	4.433	31.783	25.185
30	2.950	31.823	25.354
40	2.783	31.839	25.380
50	2.133	31.869	25.454
75	2.598	32.440	25.875
100	2.996	32.631	25.995

Station		OS08110	
Longitude		56-30.0N	
Latitude		167-00.1W	
Depth(m)		103	
Press.	Temp.	Sal.	SIG-T
5	4.933	31.728	25.089
10	4.924	31.728	25.090
20	4.793	31.739	25.113
30	2.961	31.806	25.340
40	2.693	31.817	25.370
50	1.365	31.903	25.534
75	2.564	32.447	25.883
100	2.573	32.447	25.882

Station		OS08111	
Longitude		56-29.9N	
Latitude		166-00.0W	
Depth(m)		85	
Press.	Temp.	Sal.	SIG-T
5	5.431	31.721	25.029
10	5.391	31.721	25.034
20	3.107	31.747	25.280
30	2.529	31.753	25.332
40	1.709	31.723	25.367
50	1.106	32.175	25.768
75	1.542	32.236	25.789

Station		OS08112	
Longitude		56-58.4N	
Latitude		165-59.9W	
Depth(m)		70	
Press.	Temp.	Sal.	SIG-T
5	4.272	31.592	25.050
10	4.122	31.594	25.066
20	3.548	31.622	25.142
30	0.268	31.733	25.457
40	0.243	31.736	25.461
50	0.233	31.735	25.461

Station	OS08113		
Longitude	57-00.0N		
Latitude	167-00.0W		
Depth(m)	72		
Press.	Temp.	Sal.	SIG-T
5	4.409	31.692	25.115
10	4.410	31.692	25.115
20	2.441	31.743	25.330
30	0.826	31.827	25.504
40	0.804	31.828	25.506
50	0.791	31.828	25.507

Station	OS08114		
Longitude	57-00.0N		
Latitude	167-59.9W		
Depth(m)	77		
Press.	Temp.	Sal.	SIG-T
5	4.399	31.692	25.117
10	4.383	31.692	25.118
20	4.327	31.693	25.125
30	2.362	31.762	25.352
40	0.577	32.005	25.661
50	0.475	32.026	25.683

Station	OS08115		
Longitude	55-59.7N		
Latitude	168-59.6W		
Depth(m)	1254		
Press.	Temp.	Sal.	SIG-T
5	6.150	32.467	25.533
10	6.143	32.481	25.545
20	5.892	32.504	25.594
30	4.964	32.567	25.751
40	3.983	32.789	26.029
50	3.982	32.879	26.101
75	3.942	33.009	26.208
100	3.842	33.077	26.272
125	3.652	33.123	26.327
150	3.471	33.162	26.375
200	3.056	33.231	26.468
250	3.290	33.359	26.549
300	3.572	33.481	26.620
400	3.772	33.692	26.769
500	3.712	33.897	26.938
600	3.433	34.043	27.081
700	3.210	34.168	27.202
800	3.119	34.214	27.247
900	2.955	34.282	27.316
1000	2.796	34.329	27.368
1200	2.440	34.439	27.486

Station	OS08116		
Longitude	55-40.0N		
Latitude	169-39.8W		
Depth(m)	2670		
Press.	Temp.	Sal.	SIG-T
5	6.593	32.530	25.527
10	6.584	32.531	25.529
20	6.564	32.532	25.532
30	5.382	32.654	25.772
40	4.461	32.845	26.025
50	4.215	32.962	26.144
75	3.540	33.106	26.324
100	3.065	33.168	26.417
125	2.916	33.225	26.475
150	2.918	33.257	26.501
200	3.113	33.335	26.546

Station	OS08117		
Longitude	56-29.9N		
Latitude	168-60.0W		
Depth(m)	102		
Press.	Temp.	Sal.	SIG-T
5	5.737	31.824	25.075
10	5.740	31.824	25.075
20	5.069	31.868	25.186
30	3.542	31.938	25.394
40	4.194	32.115	25.473
50	2.239	32.200	25.711
75	2.592	32.461	25.892

Station	OS08118		
Longitude	56-60.0N		
Latitude	168-60.0W		
Depth(m)	77		
Press.	Temp.	Sal.	SIG-T
5	4.569	31.716	25.118
10	4.561	31.716	25.119
20	4.561	31.716	25.119
30	1.784	31.824	25.443
40	0.639	32.005	25.657
50	0.620	32.015	25.667

Station	OS08119		
Longitude	57-30.0N		
Latitude	169-00.1W		
Depth(m)	68		
Press.	Temp.	Sal.	SIG-T
5	4.168	31.617	25.080
10	4.151	31.617	25.082
20	0.332	31.569	25.322
30	-0.155	31.658	25.415
40	0.274	31.773	25.490
50	0.395	31.818	25.519

Station	OS08120		
Longitude	57-30.1N		
Latitude	168-00.1W		
Depth(m)	68		
Press.	Temp.	Sal.	SIG-T
5	4.004	31.704	25.165
10	3.991	31.708	25.169
20	2.684	31.755	25.322
30	0.587	31.866	25.548
40	0.524	31.872	25.556
50	0.511	31.871	25.556

Station	OS08121		
Longitude	57-30.0N		
Latitude	166-59.9W		
Depth(m)	68		
Press.	Temp.	Sal.	SIG-T
5	3.525	31.647	25.164
10	3.554	31.647	25.161
20	2.411	31.677	25.280
30	0.888	31.720	25.415
40	0.757	31.755	25.450
50	0.755	31.755	25.450

Station		OS08122	
Longitude		57-28.6N	
Latitude		165-57.8W	
Depth(m)		65	
Press.	Temp.	Sal.	SIG-T
5	4.557	31.440	24.900
10	3.113	31.506	25.087
20	2.877	31.516	25.115
30	0.827	31.581	25.306
40	0.792	31.585	25.312
50	0.783	31.586	25.313

Station		OS08123	
Longitude		58-00.1N	
Latitude		165-59.8W	
Depth(m)		55	
Press.	Temp.	Sal.	SIG-T
5	3.425	31.382	24.962
10	2.843	31.400	25.025
20	2.225	31.410	25.080
30	1.444	31.434	25.152
40	1.384	31.434	25.156

Station		OS08124	
Longitude		58-60.0N	
Latitude		165-60.0W	
Depth(m)		26	
Press.	Temp.	Sal.	SIG-T
5	3.314	31.214	24.837
10	3.307	31.214	24.838
20	3.307	31.214	24.838

Station		OS08125	
Longitude		60-30.0N	
Latitude		167-59.9W	
Depth(m)		27	
Press.	Temp.	Sal.	SIG-T
5	3.622	31.111	24.728
10	3.454	31.179	24.797
20	3.545	31.266	24.859

Station		OS08126	
Longitude		61-51.4N	
Latitude		173-23.7W	
Depth(m)		63	
Press.	Temp.	Sal.	SIG-T
5	5.590	31.114	24.531
10	5.589	31.118	24.534
20	0.234	31.774	25.492
30	-1.297	32.045	25.767
40	-1.628	32.124	25.839
50	-1.620	32.214	25.912

Station		OS08127	
Longitude		62-00.0N	
Latitude		174-00.1W	
Depth(m)		64	
Press.	Temp.	Sal.	SIG-T
5	5.150	30.831	24.356
10	5.130	30.831	24.358
20	0.104	31.555	25.322
30	-1.629	32.107	25.825
40	-1.640	32.115	25.832
50	-1.641	32.114	25.831

Station		OS08128	
Longitude		62-09.3N	
Latitude		174-08.1W	
Depth(m)		64	
Press.	Temp.	Sal.	SIG-T
5	4.947	30.937	24.461
10	4.910	30.938	24.466
20	-0.554	31.909	25.634
30	-1.610	32.145	25.856
40	-1.611	32.140	25.851
50	-1.612	32.138	25.850

Station		OS08129	
Longitude		62-31.9N	
Latitude		174-28.7W	
Depth(m)		69	
Press.	Temp.	Sal.	SIG-T
5	5.109	31.910	25.215
10	5.108	31.911	25.215
20	1.271	32.093	25.692
30	-1.151	32.234	25.916
40	-1.350	32.341	26.008
50	-1.520	32.462	26.111

Station		OS08130	
Longitude		62-20.0N	
Latitude		172-39.9W	
Depth(m)		55	
Press.	Temp.	Sal.	SIG-T
5	5.892	31.605	24.884
10	5.892	31.607	24.885
20	1.568	31.943	25.552
30	-0.713	32.081	25.779
40	-1.317	32.192	25.887
50	-1.452	32.474	26.119

Station		OS08131	
Longitude		62-56.0N	
Latitude		173-17.2W	
Depth(m)		67	
Press.	Temp.	Sal.	SIG-T
5	5.263	31.956	25.234
10	5.260	31.958	25.236
20	1.187	32.193	25.777
30	-1.291	32.390	26.047
40	-1.668	32.567	26.200
50	-1.707	32.751	26.350

Station		OS08132	
Longitude		63-30.1N	
Latitude		172-50.0W	
Depth(m)		59	
Press.	Temp.	Sal.	SIG-T
5	4.937	32.303	25.545
10	4.915	32.349	25.584
20	0.335	32.274	25.890
30	-0.994	32.530	26.151
40	-1.444	32.649	26.261
50	-1.480	32.754	26.347

Station		OS08133	
Longitude		63-21.1N	
Latitude		172-29.9W	
Depth(m)		60	
Press.	Temp.	Sal.	SIG-T
5	5.307	31.771	25.083
10	5.206	31.771	25.094
20	0.998	31.937	25.583
30	-0.935	32.329	25.987
40	-1.542	32.612	26.233
50	-1.573	32.715	26.318

Station		OS08134	
Longitude		63-10.1N	
Latitude		172-10.0W	
Depth(m)		58	
Press.	Temp.	Sal.	SIG-T
5	5.465	31.744	25.043
10	5.207	31.778	25.099
20	1.693	32.203	25.752
30	-1.112	32.358	26.016
40	-1.669	32.703	26.310
50	-1.684	32.726	26.330

Station		OS08135	
Longitude		62-55.1N	
Latitude		171-40.0W	
Depth(m)		48	
Press.	Temp.	Sal.	SIG-T
5	5.446	31.919	25.184
10	5.414	31.917	25.186
20	0.488	32.085	25.730
30	-0.200	32.151	25.815
40	-0.931	32.196	25.879

Station		OS08136	
Longitude		62-38.4N	
Latitude		171-14.8W	
Depth(m)		43	
Press.	Temp.	Sal.	SIG-T
5	5.698	32.059	25.266
10	5.692	32.060	25.267
20	1.118	32.130	25.731
30	0.589	32.207	25.823

Station	OS08137		
Longitude	62-57.0N		
Latitude	166-45.0W		
Depth(m)	24		
Press.	Temp.	Sal.	SIG-T
5	8.494	29.478	22.872
10	6.204	31.050	24.409
20	2.590	31.482	25.111

Station	OS08138		
Longitude	63-10.5N		
Latitude	167-30.0W		
Depth(m)	32		
Press.	Temp.	Sal.	SIG-T
5	6.023	32.006	25.185
10	3.289	32.325	25.725
20	1.583	32.441	25.951

Station	OS08139		
Longitude	63-52.0N		
Latitude	167-44.8W		
Depth(m)	32		
Press.	Temp.	Sal.	SIG-T
5	4.183	32.077	25.444
10	3.792	32.259	25.626
20	0.539	32.513	26.072

Station	OS08140		
Longitude	63-36.0N		
Latitude	167-00.1W		
Depth(m)	25		
Press.	Temp.	Sal.	SIG-T
5	5.833	31.360	24.698
10	3.730	32.104	25.509
20	0.484	32.324	25.923

Station	OS08141		
Longitude	63-17.9N		
Latitude	166-15.0W		
Depth(m)	21		
Press.	Temp.	Sal.	SIG-T
5	9.700	26.336	20.242
10	1.566	31.287	25.027

Station	OS08142		
Longitude	63-39.2N		
Latitude	165-36.4W		
Depth(m)	20		
Press.	Temp.	Sal.	SIG-T
5	2.764	29.984	23.901
10	0.502	31.509	25.266

Station	OS08143		
Longitude	63-54.0N		
Latitude	166-11.9W		
Depth(m)	25		
Press.	Temp.	Sal.	SIG-T
5	7.529	27.336	21.323
10	3.906	29.369	23.318
20	-0.612	32.273	25.930

Station	OS08144		
Longitude	64-10.0N		
Latitude	166-49.8W		
Depth(m)	28		
Press.	Temp.	Sal.	SIG-T
5	8.476	30.284	23.505
10	7.707	30.657	23.906
20	-0.474	32.521	26.126

Station	OS08145		
Longitude	65-42.4N		
Latitude	168-15.2W		
Depth(m)	42		
Press.	Temp.	Sal.	SIG-T
5	7.476	30.173	23.557
10	5.189	31.449	24.841
20	1.151	32.492	26.020
30	1.093	32.491	26.023

Station	OS08146		
Longitude	65-43.1N		
Latitude	168-19.8W		
Depth(m)	50		
Press.	Temp.	Sal.	SIG-T
5	7.898	31.364	24.435
10	6.811	31.667	24.819
20	1.464	32.409	25.933
30	1.094	32.470	26.005
40	1.093	32.468	26.004

Station	OS08147		
Longitude	65-45.2N		
Latitude	168-29.9W		
Depth(m)	54		
Press.	Temp.	Sal.	SIG-T
5	6.518	31.925	25.059
10	6.087	31.940	25.125
20	1.334	32.411	25.944
30	1.148	32.420	25.962
40	1.144	32.419	25.961
50	1.133	32.419	25.962

Station	OS08148		
Longitude	65-47.3N		
Latitude	168-40.2W		
Depth(m)	50		
Press.	Temp.	Sal.	SIG-T
5	5.725	32.131	25.319
10	3.708	32.371	25.723
20	1.145	32.400	25.947
30	1.108	32.396	25.945
40	1.064	32.395	25.947

Station		OS08149	
Longitude		65-49.1N	
Latitude		168-49.5W	
Depth(m)		47	
Press.	Temp.	Sal.	SIG-T
5	2.337	32.518	25.959
10	2.435	32.522	25.953
20	2.034	32.516	25.979
30	1.532	32.504	26.005
40	1.518	32.505	26.006

Station		OS08152	
Longitude		67-05.2N	
Latitude		168-39.8W	
Depth(m)		43	
Press.	Temp.	Sal.	SIG-T
5	4.159	32.101	25.465
10	3.990	32.097	25.479
20	1.819	32.308	25.828
30	1.774	32.312	25.835
40	1.561	32.353	25.882

Station		OS08155	
Longitude		69-59.1N	
Latitude		167-58.0W	
Depth(m)		46	
Press.	Temp.	Sal.	SIG-T
5	-1.060	30.388	24.418
10	-1.420	31.931	25.678
20	-1.491	32.467	26.115
30	-1.441	32.673	26.281
40	-1.457	32.676	26.284

Station		OS08158	
Longitude		70-28.1N	
Latitude		166-44.0W	
Depth(m)		46	
Press.	Temp.	Sal.	SIG-T
5	2.705	29.701	23.680
10	1.877	30.500	24.376
20	-0.705	32.462	26.086
30	-1.377	32.657	26.266
40	-1.383	32.674	26.280

Station		OS08161	
Longitude		71-04.0N	
Latitude		166-05.1W	
Depth(m)		41	
Press.	Temp.	Sal.	SIG-T
5	0.313	29.583	23.723
10	-0.424	30.603	24.573
20	-1.693	32.810	26.398
30	-1.710	32.983	26.539

Station		OS08164	
Longitude		70-29.8N	
Latitude		164-45.7W	
Depth(m)		43	
Press.	Temp.	Sal.	SIG-T
5	3.713	29.719	23.613
10	2.900	29.791	23.737
20	2.554	32.365	25.819
30	-1.108	32.486	26.119

Station		OS08150	
Longitude		66-10.5N	
Latitude		168-40.0W	
Depth(m)		52	
Press.	Temp.	Sal.	SIG-T
5	5.323	32.514	25.669
10	4.390	32.604	25.842
20	1.821	32.522	26.000
30	1.623	32.552	26.037
40	1.558	32.544	26.036

Station		OS08153	
Longitude		67-32.4N	
Latitude		168-40.1W	
Depth(m)		47	
Press.	Temp.	Sal.	SIG-T
5	4.095	32.588	25.859
10	4.078	32.589	25.861
20	1.667	32.677	26.135
30	1.543	32.705	26.166
40	1.548	32.706	26.166

Station		OS08156	
Longitude		70-04.0N	
Latitude		167-09.9W	
Depth(m)		44	
Press.	Temp.	Sal.	SIG-T
5	4.416	30.661	24.297
10	4.377	30.656	24.296
20	-0.213	32.260	25.904
30	-0.788	32.370	26.015
40	-1.084	32.538	26.161

Station		OS08159	
Longitude		70-40.0N	
Latitude		166-31.0W	
Depth(m)		40	
Press.	Temp.	Sal.	SIG-T
5	3.392	29.969	23.840
10	-0.634	31.675	25.447
20	-1.194	32.556	26.178
30	-1.562	32.801	26.388

Station		OS08162	
Longitude		70-38.3N	
Latitude		166-46.3W	
Depth(m)		45	
Press.	Temp.	Sal.	SIG-T
5	2.200	29.748	23.753
10	1.030	32.267	25.846
20	-1.242	32.630	26.240
30	-1.288	32.663	26.268
40	-1.300	32.669	26.273

Station		OS08165	
Longitude		70-24.8N	
Latitude		163-29.6W	
Depth(m)		32	
Press.	Temp.	Sal.	SIG-T
5	1.580	31.595	25.273
10	0.469	32.511	26.074
20	-0.331	32.953	26.469

Station		OS08151	
Longitude		66-37.9N	
Latitude		168-40.1W	
Depth(m)		41	
Press.	Temp.	Sal.	SIG-T
5	7.564	30.602	23.882
10	3.407	32.261	25.663
20	1.124	32.431	25.972
30	1.104	32.428	25.972

Station		OS08154	
Longitude		69-54.2N	
Latitude		168-40.1W	
Depth(m)		40	
Press.	Temp.	Sal.	SIG-T
5	-0.278	30.176	24.224
10	-1.332	31.966	25.704
20	-1.690	32.733	26.335
30	-1.718	33.157	26.681

Station		OS08157	
Longitude		70-16.1N	
Latitude		166-57.1W	
Depth(m)		43	
Press.	Temp.	Sal.	SIG-T
5	2.764	30.257	24.119
10	0.524	32.290	25.893
20	-1.114	32.496	26.127
30	-1.153	32.512	26.142

Station		OS08160	
Longitude		70-52.0N	
Latitude		166-17.8W	
Depth(m)		41	
Press.	Temp.	Sal.	SIG-T
5	3.627	30.145	23.959
10	3.004	30.375	24.194
20	-1.510	32.560	26.191
30	-1.702	32.922	26.489

Station		OS08163	
Longitude		70-34.8N	
Latitude		166-02.0W	
Depth(m)		41	
Press.	Temp.	Sal.	SIG-T
5	4.667	30.229	23.929
10	0.806	32.084	25.712
20	-1.352	32.618	26.233
30	-1.349	32.648	26.258

Station		OS08166	
Longitude		70-00.9N	
Latitude		163-41.6W	
Depth(m)		25	
Press.	Temp.	Sal.	SIG-T
5	5.850	31.084	24.478
10	6.269	30.991	24.354
20	2.814	32.442	25.859

Station		OS08167	
Longitude		70-05.8N	
Latitude		164-57.6W	
Depth(m)		39	
Press.	Temp.	Sal.	SIG-T
5	4.046	30.029	23.830
10	1.087	30.905	24.749
20	-0.496	32.363	25.999
30	-0.243	32.859	26.389

Station		OS08168	
Longitude		70-10.7N	
Latitude		166-14.0W	
Depth(m)		43	
Press.	Temp.	Sal.	SIG-T
5	4.970	31.140	24.619
10	4.130	31.258	24.798
20	-0.615	32.109	25.798
30	-0.696	32.139	25.825
40	-0.711	32.143	25.829

Station		OS08169	
Longitude		69-50.1N	
Latitude		168-49.5W	
Depth(m)		45	
Press.	Temp.	Sal.	SIG-T
5	3.641	30.794	24.475
10	-0.275	31.525	25.313
20	-0.938	32.539	26.157
30	-1.175	32.674	26.274
40	-1.258	32.682	26.282

Station		OS08170	
Longitude		69-30.0N	
Latitude		167-00.1W	
Depth(m)		45	
Press.	Temp.	Sal.	SIG-T
5	4.718	29.898	23.662
10	2.381	31.358	25.028
20	2.288	32.060	25.596
30	1.385	32.128	25.713
40	1.493	32.175	25.743

Station		OS08171	
Longitude		68-52.3N	
Latitude		166-45.4W	
Depth(m)		43	
Press.	Temp.	Sal.	SIG-T
5	5.318	30.727	24.255
10	3.209	30.909	24.604
20	1.515	31.191	24.953
30	2.979	31.575	25.154

Station		OS08172	
Longitude		68-52.3N	
Latitude		167-50.0W	
Depth(m)		48	
Press.	Temp.	Sal.	SIG-T
5	6.066	31.694	24.933
10	5.572	32.006	25.238
20	2.383	32.254	25.744
30	2.669	32.324	25.777
40	2.770	32.343	25.784

Station		OS08173	
Longitude		68-52.3N	
Latitude		168-40.1W	
Depth(m)		50	
Press.	Temp.	Sal.	SIG-T
5	5.018	32.386	25.601
10	4.763	32.404	25.643
20	2.618	32.416	25.855
30	2.398	32.423	25.878
40	2.127	32.448	25.918

Station		OS08174	
Longitude		68-30.7N	
Latitude		168-34.5W	
Depth(m)		51	
Press.	Temp.	Sal.	SIG-T
5	4.005	32.526	25.818
10	3.910	32.532	25.832
20	3.013	32.567	25.942
30	1.524	32.587	26.072
40	1.527	32.591	26.075

Station		OS08175	
Longitude		68-11.4N	
Latitude		167-12.8W	
Depth(m)		44	
Press.	Temp.	Sal.	SIG-T
5	5.311	32.325	25.521
10	3.479	32.277	25.670
20	3.192	32.268	25.688
30	3.122	32.266	25.693
40	2.928	32.276	25.717

Station		OS08176	
Longitude		67-32.6N	
Latitude		168-39.7W	
Depth(m)		48	
Press.	Temp.	Sal.	SIG-T
5	3.385	32.603	25.938
10	2.202	32.682	26.100

Station		OS08177	
Longitude		66-46.9N	
Latitude		167-16.8W	
Depth(m)		32	
Press.	Temp.	Sal.	SIG-T
5	6.372	31.534	24.769
10	5.919	31.843	25.068
20	4.410	31.953	25.322

Station		OS08178	
Longitude		66-37.9N	
Latitude		168-39.9W	
Depth(m)		42	
Press.	Temp.	Sal.	SIG-T
5	5.180	31.954	25.242
10	5.317	31.983	25.249
20	4.576	32.196	25.498
30	3.974	32.253	25.604
40	3.550	32.304	25.685

Station		OS08179	
Longitude		65-49.1N	
Latitude		168-49.7W	
Depth(m)		47	
Press.	Temp.	Sal.	SIG-T
5	3.844	32.295	25.650
10	3.234	32.329	25.733
20	1.610	32.397	25.914
30	1.466	32.406	25.931
40	1.465	32.406	25.930

Station		OS08180	
Longitude		65-47.5N	
Latitude		168-40.4W	
Depth(m)		50	
Press.	Temp.	Sal.	SIG-T
5	5.427	32.155	25.373
10	5.039	32.173	25.430
20	1.329	32.425	25.955
30	1.183	32.426	25.965
40	1.185	32.425	25.964

Station		OS08181	
Longitude		65-45.3N	
Latitude		168-30.1W	
Depth(m)		53	
Press.	Temp.	Sal.	SIG-T
5	6.375	29.885	23.469
10	6.389	30.808	24.196
20	3.765	32.041	25.456
30	3.724	32.057	25.472
40	3.719	32.068	25.481

Station	OS08182			
Longitude	65-43.3N			
Latitude	168-19.7W			
Depth(m)	50			
Press.	Temp.	Sal.	SIG-T	
5	4.949	30.337	23.986	
10	4.933	30.380	24.021	
20	4.963	30.649	24.231	
30	5.015	30.794	24.341	
40	5.057	30.844	24.376	

Station	OS08183			
Longitude	65-42.4N			
Latitude	168-15.2W			
Depth(m)	42			
Press.	Temp.	Sal.	SIG-T	
5	7.699	28.958	22.574	
10	6.961	29.175	22.839	
20	5.662	29.811	23.493	
30	5.203	30.311	23.939	

Station	OS08184			
Longitude	41-30.0N			
Latitude	145-46.9E			
Depth(m)	6800			
Press.	Temp.	Sal.	SIG-T	
5	16.204	32.699	23.933	
10	16.092	32.700	23.960	
20	9.135	32.959	25.499	
30	4.970	33.051	26.134	
40	3.593	33.082	26.300	
50	2.797	33.113	26.396	
75	1.842	33.157	26.507	
100	1.559	33.224	26.581	
125	1.670	33.310	26.642	
150	1.815	33.390	26.696	
200	1.845	33.483	26.768	
250	2.472	33.620	26.829	
300	2.671	33.719	26.891	
400	3.017	33.888	26.996	
500	3.151	34.031	27.098	
600	3.153	34.148	27.191	
700	3.258	34.246	27.259	
800	3.089	34.310	27.326	
900	2.859	34.338	27.369	
1000	2.699	34.382	27.418	
1200	2.588	34.458	27.489	
1500	2.262	34.517	27.564	
2000	1.924	34.586	27.646	
2500	1.688	34.627	27.697	
3000	1.571	34.648	27.723	

5. Data on Drift Gillnet Research

The only one gillnet research was performed during this cruise.

The operation was supervised by the captain, Deck officers, crew and research staff were engaged in the work.

Table 3: Data on drift gillnet research

No. of research	Date and Time (S.M.T.)				Position		Bottom					
	Net set		Net haul		Lat.(N)	Long.(E)	D.D.	depth(m)	Wr	Wind	S.T.	Tr
										(Force)	(° C)	
OSG0805	June 8	1752-1820	June 9	0430-0535	39-00.4	170-20.4	310	6230	bc	ESE-2	14.8	13.6

D.D.:Direction of Drift toward, S.T.:Surface temperature, Wr.:Weather (bc:25-75% clouded), Tr:Transparency

Table 4: Amount of net cast (Tan)

No. of research	Mesh size (mm)																			Total
OSG0805	19	22	25	29	33	37	42	48	55	63	72	82	93	106	121	138	157	115	121	49

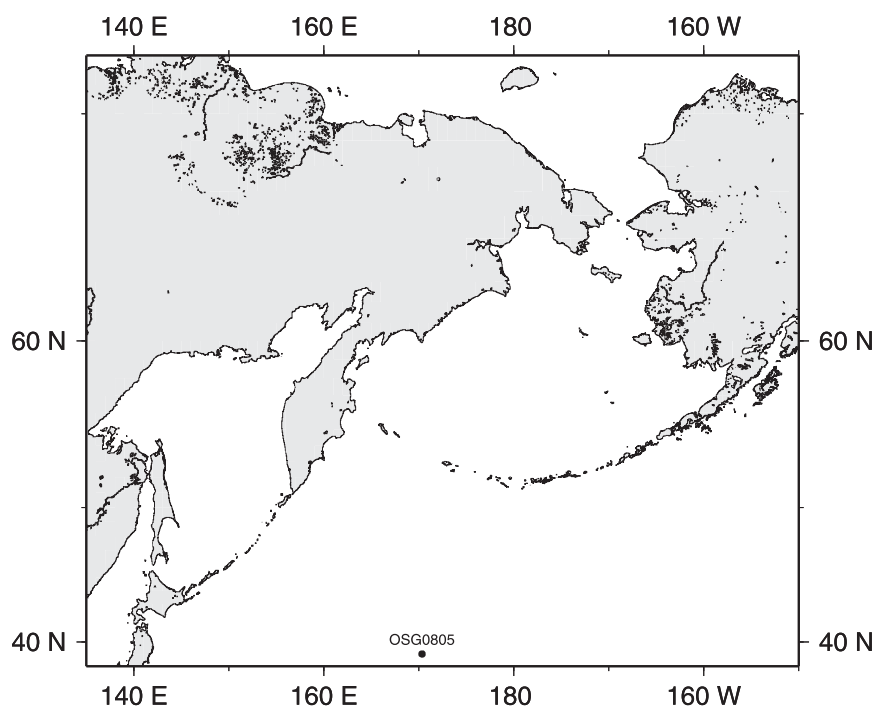


Figure 3: Location of gillnet research

Table 5: Data on catch number of salmonids by drift gillnet research

Sockeye (catch number)																									
No. of research	19	22	25	29	33	37	42	48	55	Mesh size (mm)										121	138	157	115	121	Total
OSG0805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Chum (catch number)																									
No. of research	19	22	25	29	33	37	42	48	55	Mesh size (mm)										121	138	157	115	121	Total
OSG0805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Pink (catch number)																									
No. of research	19	22	25	29	33	37	42	48	55	Mesh size (mm)										121	138	157	115	121	Total
OSG0805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Coho (catch number)																									
No. of research	19	22	25	29	33	37	42	48	55	Mesh size (mm)										121	138	157	115	121	Total
OSG0805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Chinook (catch number)																									
No. of research	19	22	25	29	33	37	42	48	55	Mesh size (mm)										121	138	157	115	121	Total
OSG0805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Steelhead (catch number)																									
No. of research	19	22	25	29	33	37	42	48	55	Mesh size (mm)										121	138	157	115	121	Total
OSG0805	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					

Table 6: Data on number of organisms except salmonids caught by drift gillnet

Scientific Name	Species	OSG0805	Total
<i>Ommastrephes bartrami</i>	Flying squid	1	1
<i>Prionace glauca</i>	Blue shark	13	13
<i>Cololabis saira</i>	Pacific saury	1	1
<i>Tetragonurus cuvieri</i>	Smalleye squaretail	1	1

Table 7: Biological characteristics of fishes caught by drift gillnet research

NEON FLYING SQUID											
St.	Gear	S.L.	B.W.	St.	Gear	S.L.	B.W.	St.	Gear	S.L.	B.W.
	(mm)	(mm)	(gr)		(mm)	(mm)	(gr)		(mm)	(mm)	(gr)
G05	A115	458	3400	G05	A115	372		G05	C093	352	
G05	A115	408	2440	G05	A115	376	1670				
G05	A115	368		G05	C063	206	285				
PACIFIC POMFRET											
G05	A115	453	1540	G05	C063	164	74	G05	C138	404	1175
G05	A121	444	1409	G05	C072	186	113	G05	C138	430	1293
G05	A121	437	1260	G05	C072	187	107	G05	C138	416	1210
G05	C048	430	1320	G05	C072	425	1450	G05	C138	429	1308
G05	C055	190	120	G05	C072	436	1566	G05	C138	428	1406
G05	C055	181	105	G05	C072	436	1370	G05	C138	422	1264
G05	C055	168	80	G05	C072	456	1637	G05	C138	440	1481
G05	C055	160	75	G05	C072	173	102	G05	C157	420	1260
G05	C055	163	85	G05	C072	170	87	G05	C157	463	1631
G05	C055	184	120	G05	C072	188	107	G05	C157	404	1249
G05	C055	182	130	G05	C072	180	114	G05	C157	432	1428
G05	C055	168	85	G05	C072	212	169	G05	C157	435	1511
G05	C055	168	105	G05	C072	186	110	G05	C157	422	1284
G05	C055	192	130	G05	C072	194	112	G05	C157	420	1340
G05	C055	178	70	G05	C082	460	1825	G05	C157	430	1430
G05	C063	167	83	G05	C106	400	1260	G05	C157	434	1360
G05	C063	178	105	G05	C106	420	1480	G05	C157	430	1360
G05	C063	184	117	G05	C106	450	1650	G05	C157	393	1140
G05	C063	177	106	G05	C121	444	1279	G05	C157	406	1380
G05	C063	186	120	G05	C121	418	1306	G05	C157	450	1440
G05	C063	166	91	G05	C121	419	1260	G05	C157	428	1223
G05	C063	170	94	G05	C138	425	1366	G05	C157	455	1520
G05	C063	166	96	G05	C138	449	1444				
G05	C063	167	92	G05	C138	428	1241				
PACIFIC SAURY											
G05	F33	300	123								

6.Data on Salmon Longline and Hook-and-Line Research

[Longline Sampling]

Eleven operations using a salmon longline were performed.

Ten or five baskets (hachi) of salmon longline were used in each operation. Each basket was composed of 127 meters of main line with 34 branch lines. The branch lines, each with a hook, were attached to a main line at an interval of 3 meters. The hooks hung to about 2 meters depth.

These operations were supervised by the captain, Deck officers, crew, cadets and research staff were engaged in the work.

[Hook-and-Line Sampling]

To collect salmonids, hook-and-line gears were used along 44 °N line in the Central North Pacific, in the Bering Sea, and in the Chukuchi Sea during Cruise #190-Leg 1, 2.

Five to ten anglers were engaged in the work. These samplings were mainly conducted with other observations when ship was under drifting.

Table 8: List of hook-and-line sampling station during the *Oshoro maru* Cruise # 190

Station	Date and Time (S.M.T.)					Set Position		D.S.	No. of hooks	Wr.	Wind (Force)	Oceanographic Station No.
	Line set		Line haul		T.D.	Lat.	Long.					
OSHL 0801	June 10	01:35	June 10	04:00	+11h	42-00.0N	170-20.0E	-	-	bc	SSE-3	OS 08064
OSHL 0802	June 10	12:30	June 10	18:30	+11h	43-30.0N	170-20.0E	-	-	o	SE-3	OS 08067
OSHL 0803	June 12	12:45	June 12	15:45	+11h	50-20.0N	175-18.0E	-	-	o	ESE-5	OS 08073
OSHL 0804	June 12	20:25	June 12	23:00	+11h	51-00.0N	175-54.0E	-	-	m	SE-6	OS 08075
OSHL 0805	June 13	04:30	June 13	06:30	+11h	51-40.0N	176-30.0E	-	-	r	SE-6	OS 08077
OSHL 0806	June 13	16:40	June 13	18:40	+11h	53-25.0N	178-00.0E	-	-	m	SSE-6	OS 08078
OSHL 0807	June 13	22:30	June 13	03:30(-12h)	+11h	53-25.0N	179-00.0E	-	-	d	SE-6	OS 08080
OSHL 0808	June 13	18:50	June 13	20:25	-12h	53-25.0N	178-00.0W	-	-	d	SSW-5	OS 08086
OSHL 0809	June 14	01:00	June 14	02:45	-12h	53-27.6N	177-00.8W	-	-	d	South-4	OS 08087
OSHL 0810	June 16	23:45	June 17	03:00(-11h)	-12h	50-05.0N	179-55.0W	-	-	d	SSW-4	OS 08091
OSHL 0811	June 17	07:20	June 17	09:50	-11h	49-30.0N	180-00.0	-	-	r	SW-4	OS 08093
OSHL 0812	June 19	02:05	June 19	04:35	-10h	50-20.0N	172-00.0W	-	-	d	South-3	OS 08095
OSHL 0813	June 19	19:05	June 19	21:35	-10h	51-20.0N	172-00.0W	-	-	f	NE-2	OS 08098
OSHL 0814	June 19	23:30	June 20	03:00(-9h)	-10h	51-40.0N	172-00.0W	-	-	f	NNE-4	OS 08099
OSHL 0815	June 20	04:35	June 20	05:20	-9h	51-45.0N	172-00.0W	-	-	f	NNE-3	OS 08100
OSHL 0816	June 24	16:20	June 24	17:20	-8h	55-00.0N	166-00.0W	-	-	r	ENE-3	OS 08102
OSHL 0817	June 25	04:05	June 25	04:30	-8h	56-00.0N	167-00.0W	-	-	r	NNE-4	OS 08105
OSHL 0818	June 27	04:00	June 27	05:20	-8h	57-00.0N	168-00.0W	-	-	d	North-3	OS 08114
OSHL 0819	June 28	00:00	June 28	01:00	-8h	56-30.0N	169-00.0W	-	-	d	NW-3	OS 08117
OSHL 0820	June 28	04:25	June 28	05:10	-8h	57-00.0N	169-00.0W	-	-	f	NW-4	OS 08118

S.M.T. : Ship's Mean Time T.D.: Time Difference between Greenwich Mean Time (G.M.T.) and S.M.T.

D.S. : Direction in which line was set Wr.: Weather (r: rain, o: 100% clouded, d: drizzling rain, f: fog, bc: 25-75% clouded, c: 80-98% clouded, m: mist)

Table 9: Position and research conditions of surface longline sampling at each station during the *Oshoro maru* Cruise #190, 2008

Station	Date and Time (S.M.T.*1)		T.D.*2	Set Position		Number of baskets	W _r *4	Wind (Force)	Scientific name and number of caught		
	Line set			Lat.	Long.						
Cruise #190 - Leg 1											
OSSL 0801	June 9	04:10-06:07	+11h	39-00.9N	170-20.5E	10	c	SE-2	<i>Prionace glauca</i>	1	
OSSL 0802	June 14	00:30-05:00	-12h	53-26.1N	177-00.5W	10	d	South-4	<i>Oncorhynchus nerka</i>	1	
OSSL 0803	June 16	18:50-20:34	-12h	50-25.0N	179-50.0W	5	f	South-4			
OSSL 0804	June 19	01:55-06:30	-10h	50-20.0N	172-00.0W	5	d	South-3	<i>Squalus acanthias Linnaeus</i>	1	
OSSL 0805	June 20	04:22-05:53	-9h	51-45.0N	172-00.0W	10	f	NE-3			
Cruise #190 - Leg 2											
OSSL 0806	June 26	19:20-21:06	-8h	56-59.0N	166-00.0W	10	c	NNW-4	<i>Oncorhynchus keta</i>	1	
OSSL 0807	June 28	20:46-23:58		57-28.6N	165-57.8W	10	f	WNW-2	<i>Trichodon trichodon</i>	1	
OSSL 0808	July 1	06:48-10:51		62-56.0N	173-17.3W	10	f	SE-4		<i>Limanda aspera</i>	28
OSSL 0809	July 3	04:18-06:52		63-52.0N	167-44.8W	10	o	NNE-3			
Cruise #190 - Leg 3											
OSSL 0810	July 7	05:08-08:17	-8h	66-10.0N	168-40.0W	10	c	SSE-4	<i>Myoxocephalus</i> sp.	1	
OSSL 0811	July 13	05:08-08:17		66-46.9N	167-16.8W	10	d	North-3			

*1 S.M.T. : Ship's Mean Time.

*2 T.D. : Time Difference between Greenwich Mean Time (G.M.T.) and Ship's Mean Time (S.M.T.).

*3 D.S. : Direction of line set.

*4 Wr : Weather (r: rain, o: 100% clouded, bc: 25-75% clouded).

*5 F: Fixed to the ship

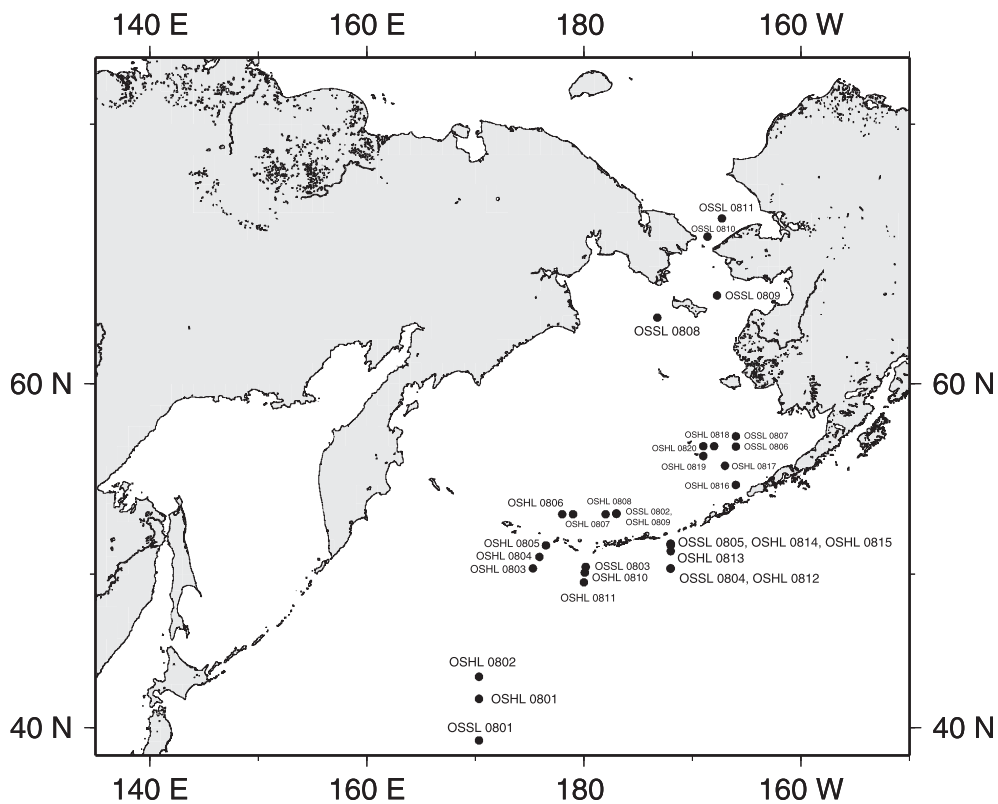


Figure 4: Locations of salmon longline (OSSL 08XX) and hook-and-line (OSHL 08XX) research

Table 10: The catch number of each salmonid at each station where salmonids were collected by hook-and-line gear in the *Oshoro maru* Cruise #190-Leg1 and Leg2, 2008

	Station Name	Species name				Total
		Sockeye	Chum	Pink	Coho	
Cruise #190 Leg 1	OSHL 0801	0	0	2	7	9
	OSHL 0802	0	0	5	2	7
	OSHL 0803	1	0	0	0	1
	OSHL 0804	5	9	3	0	17
	OSHL 0805	0	1	0	0	1
	OSHL 0806	0	0	1	0	1
	OSHL 0807	16	0	4	0	20
	OSHL 0808	0	2	1	0	3
	OSHL 0809	30	4	6	0	40
	OSHL 0810	2	2	2	0	6
	OSHL 0811	0	2	0	0	2
	OSHL 0812	3	10	2	0	15
	OSHL 0813	1	1	0	0	2
	OSHL 0814	3	1	6	0	10
	OSHL 0815	3	0	0	0	3
	Subtotal	65	33	32	9	139
#190 Leg 2	OSHL 0816	0	1	0	0	1
	OSHL 0817	0	0	2	0	2
	OSHL 0818	1	2	0	0	3
	OSHL 0819	0	0	2	0	2
	OSHL 0820	4	0	5	0	9
	Subtotal	5	4	9	0	18
Total		70	37	41	9	157

Table 11: Biological characteristics of salmonids caught by salmon longline and hook-and-line research

SOCKEYE SALMON														
St.	F.L. (mm)	B.W. (gr)	Sex	G.W. (gr)	St.	F.L. (mm)	B.W. (gr)	Sex	G.W. (gr)	St.	F.L. (mm)	B.W. (gr)	Sex	G.W. (gr)
HL03	596	2860	F	40	HL09	580	2740	M	50	HL09	561	2100	F	150
HL04	570	2650	F	55	HL09	598	2950	F	110	HL09	615	3200	M	47
HL04	470	1200	F	11	HL09	562	2500	M	28	HL09	532	1950	F	70
HL04	544	2100	F	190	HL09	580	2800	M	32	HL09	606	3300	M	37
HL04	590	2710	M	11	HL09	554	2450	M	61	HL10	446	990	F	11
HL04	556	2150	F	12	HL09	612	3250	M	67	HL10	412	820	F	11
HL07	576	3150	M	42	HL09	622	3600	M	47	HL12	468	1050	F	13
HL07	582	3050	M	37	HL09	580	1720	M	31	HL12	438	890	F	9
HL07	560	2460	M	50	HL09	559	2520	M	24	HL12	587	3120	F	110
HL07	498	1540	M	1	HL09	606	3150	M	54	HL13	624	3800	M	15
HL07	592	3050	M	30	HL09	560	2250	M	35	HL14	595	3350	F	130
HL07	580	2900	F	68	HL09	574	2400	F	68	HL14	427	880	F	9
HL07	534	2200	M	40	HL09	555	2320	F	85	HL14	562	2440	M	62
HL07	600	3100	M	27	HL09	538	2160	F	100	HL15	474	1480	F	2
HL07	594	2800	M	23	HL09	591	2650	M	67	HL15	530	1900	F	65
HL07	570	2340	F	66	HL09	639	3400	M	45	HL15	658	4100	M	92
HL07	634	3900	M	48	HL09	601	3100	F	125	HL18	514	1420	F	68
HL07	632	3800	M	50	HL09	542	2000	M	23	HL20	626	3120	M	78
HL07	612	3300	M	24	HL09	628	3850	M	65	HL20	570	2650	F	120
HL07	572	2600	M	28	HL09	621	3500	M	63	HL20	652	4300	M	45
HL07	636	3300	M	45	HL09	663	3480	M	59	HL20	626	3160	M	105
HL07	640	3300	M	23	HL09	619	3700	M	32	L02	550	2420	M	44
HL09	566	2540	F	105	HL09	570	2500	F	135					
HL09	568	2540	F	62	HL09	530	1950	M	33					
CHUM SALMON														
HL04	533	2150	F	25	HL09	662	2160	M	1	HL12	578	2200	M	13
HL04	568	2200	F	110	HL09	494	1200	F	22	HL12	436	820	M	1
HL04	518	1600	M	2	HL09	564	2040	F	28	HL12	464	1040	M	1
HL04	466	1200	F	41	HL10	550	1720	F	40	HL12	420	820	F	13
HL04	518	1680	F	22	HL10	535	1510	F	30	HL13	380	580	F	7
HL04	498	1520	M	1	HL11	503	1440	M	1	HL14	642	3650	M	21
HL04	476	1200	F	15	HL11	503	1340	F	27	HL16	562	2100	M	2
HL04	554	1850	M	1	HL12	446	950	F	9	HL18	603	2265	M	2
HL04	480	1290	M	2	HL12	412	690	F	7	HL18	583	2090	F	58
HL05	504	1650	F	22	HL12	490	1220	F	33	L02	584	2290	F	33
HL08	558	2200	M	1	HL12	448	990	M	2	L06	616	3400	M	275
HL08	554	2040	F	35	HL12	428	820	M	1					
HL09	554	2000	M	2	HL12	440	1000	M	1					
PINK SALMON														
HL01	470	1160	F	36	HL07	446	1000	M	30	HL14	452	1040	F	75
HL01	464	1120	F	46	HL08	472	1160	M	24	HL14	442	1080	F	76
HL02	458	1100	F	42	HL09	422	890	F	61	HL14	437	1050	F	69
HL02	476	1200	F	50	HL09	458	1200	M	75	HL14	414	830	F	85
HL02	426	860	M	7	HL09	450	1080	F	100	HL17	467	1100	M	40
HL02	461	1210	F	50	HL09	481	1360	M	70	HL17	432	1020	M	76
HL02	454	1220	F	40	HL09	428	890	M	32	HL19	428	920	M	78
HL04	498	1400	M	78	HL09	481	1220	M	47	HL19	440	950	F	93
HL04	445	1080	F	77	HL10	430	1130	F	86	HL20	428	920	M	44
HL04	484	1480	M	1	HL10	544	1920	M	30	HL20	418	820	F	120
HL06	448	1060	F	60	HL12	420	890	F	57	HL20	434	980	F	100
HL07	445	1100	M	35	HL12	460	1040	F	78	HL20	446	1140	F	105
HL07	434	990	F	80	HL14	424	860	F	80	HL20	454	1100	F	110
HL07	432	960	F	70	HL14	442	1110	F	82					
COHO SALMON														
HL01	462	1540	M	5	HL01	520	1340	M	3	HL01	500	1300	F	18
HL01	512	1690	M	3	HL01	500	1420	F	30	HL02	516	1330	F	26
HL01	522	1560	M	10	HL01	510	1300	M	3	HL02	481	1230	F	25

7. Data on Bottom Trawl Research

Fifteen operations of the stern otter bottom trawl were carried out.

These operations were supervised by the captain, Deck officers, crew, research staff and cadets were engaged in the work.

Table 12: Data on bottom trawl research during the *Oshoro maru* Cruise # 190

No. of research	Date and time of net tow (S.M.T.)		Position		Direction	Speed of	Bottom	Wr	Wind (Force)
			Lat.(N)	Long.(W)	of tow	tow(K't)	depth(m)		
OST0801	June 25	1002-1022	55-58.9	168-02.6	210	3.9	140	o	North-3
OST0802	26	1256-1326	56-31.1	166-04.9	180	3.4	86	o	North-5
OST0803	28	1245-1305	57-33.8	168-06.2	150	3.1	65	r	NNW-3
OST0804	30	1130-1140	61-49.1	173-16.1	300	4.2	63	o	SSE-4
OST0805	30	1630-1640	62-04.7	174-04.6	338	4.4	64	o	SE-3
OST0806	July 1	0938-0948	62-56.5	173-16.3	310	4.1	66	o	ESE-3
OST0807	1	1433-1443	63-24.6	172-53.3	015	3.5	63	o	ESE-4
OST0808	2	0924-0934	62-38.6	171-15.4	120	4.3	42	o	NNE-2
OST0809	8	1427-1437	69-53.9	168-40.0	170	4.0	42	o	South-5
OST0810	9	1418-1428	70-44.2	166-35.9	170	3.7	41	bc	South-4
OST0811	10	0821-0836	70-24.1	163-27.1	030	3.1	31	f	SW-2
OST0812	10	1457-1512	70-05.8	164-57.8	270	3.7	37	c	SE-2
OST0813	11	1322-1337	69-30.1	167-02.7	118	3.6	44	c	SSE-2
OST0814	12	1244-1259	68-30.8	168-32.7	085	4.0	50	r	East-4
OST0815	13	1315-1330	66-39.5	168-28.2	180	3.6	35	f	North-2

S.T. : Surface temperature

Wr : Weather (r: rain, o: 100% clouded, f: fog, bc: 25-75% clouded, c: 80-98% clouded)

9. Data on Calibration of Flowmeters

Flowmeters used for plankton nets were calibrated once in each leg (leg 1-4).

Table 15: Calibration data on flowmeters used for a twin or single NORPAC net and other kind of nets

50-m wire out at OS08099 (51-40N, 172-00W) in 20 June 2008.

Flowmeter No.	Wire length (m)	Revolution						Mean
		1	2	3	4	5	6	
RG1333	50	530	518	530	540*	492*	502	520
RG2374	50	468*	468	485	514*	478	498	482
RG2562	50	535*	515	528	528	474*	492	516
RG2856	50	649	645	685*	679	592	550*	641
RG3023	50	569	658*	578	605	548*	560	578

*: omitted from mean value calculation.

50-m wire out at OS08122 (57-28N, 165-57W) in 28 June 2008.

Flowmeter No.	Wire length (m)	Revolution						Mean
		1	2	3	4	5	6	
RG2374	50	460*	451	460	450*	459	460	458
RG2555	50	400*	386	396	388	396	385*	392
RG3006	50	430*	416	420	413	408*	422	418

*: omitted from mean value calculation.

10-m wire out at OS08144 (64-10N, 166-49W) in 2 July 2008.

Flowmeter No.	Wire length (m)	Revolution										Mean
		1	2	3	4	5	6	7	8	9	10	
RG895	10	150*	145	131	134	127	118	121	120*	125	129	129
RG1333	10	135*	120	113	120	105	105	113	105	100*	116	112
RG2562	10	140*	135	125	128	115	110*	119	118	113	119	122
RG2856	10	162*	140	140	142	134	130	125	150	125*	149	139
RG3023	10	138*	128	120	122	120	112*	122	112	115	120	120
RG3024	10	165*	125	192*	130	128	123	143	105*	128	131	130

*: omitted from mean value calculation.

10-m wire out at OS08178 (66-38N, 168-40W) in 13 July 2008.

Flowmeter No.	Wire length (m)	Revolution										Mean
		1	2	3	4	5	6	7	8	9	10	
RG895	10	118	120	113	107*	110	111	110	123	110	206*	114
RG1333	10	100*	98	98	89*	90	98	97	99	92	90	95
RG2562	10	111	111	110	102	105	110	113*	113	107	99*	109
RG2856	10	156	141	157	76*	133	150	132	162*	158	138	146
RG3024	10	156	156	138*	151	190	250*	143	160	150	120	153

*: omitted from mean value calculation.

50-m wire out at OS08184 (41-30N, 145-47E) in 28 July 2008.

Flowmeter No.	Wire length (m)	Revolution						Mean
		1	2	3	4	5	6	
RG1333	50	530*	505	511	518	490*	510	511
RG2562	50	552	542*	549	563*	544	543	547

*: omitted from mean value calculation.

10.Data on Nutrients

Seawater samples were collected with Niskin bottles on the CTD system. The samples for nutrient analysis were stored in polyethylene bottles and kept in a freezer at -20. Nutrients were analyzed in the laboratory with Technicon Auto-analyzer. The analyses of nutrients were conducted by K.Toya.

Table 13: Data on catches by bottom trawl research

Japanese name	Species Scientific Name	OST 0801		OST 0802		OST 0803	
		Number	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)
Sokogangiei-ruì	<i>Bathyrāja</i> spp.	2	10	11	15.5	3	3.5
Nishin	<i>Clupea pallasii</i>	-	-	-	-	-	-
Karafutoshisyamo	<i>Mallotus villosus</i>	-	-	-	-	-	-
Suketoudara	<i>Theragra chalcogramma</i>	89	90	70	80.5	12	9.1
Komai	<i>Eleginus gracilis</i>	-	-	-	-	-	-
Madara	<i>Gadus macrocephalus</i>	16	10	8	25.5	3	1.3
Hokkyokudara	<i>Boreogadus saida</i>	-	-	-	-	-	-
Kitanohokke	<i>Pleurogrammus monopterygius</i>	1	1.1	-	-	-	-
Hokkyokukajika	<i>Triglops pingeli</i>	-	-	-	-	-	-
Nameyokosujikajika	<i>Hemilepidotus jordani</i>	-	-	-	-	3	2.55
Shiberiatsumagurokajika	<i>Gymnocanthus tricusps</i>	-	-	-	-	-	-
Gisukajika-ruì 1	<i>Myoxocephalus scorpius</i>	-	-	-	-	-	-
Gisukajika-ruì 2	<i>Myoxocephalus</i> sp.	-	-	-	-	-	-
Kourikajika-ruì	<i>Icelus uncinatis</i>	-	-	-	-	-	-
Okikajika-ruì	<i>Arteidiellus scaber</i>	-	-	-	-	-	-
Hokakeanahaze	<i>Blepsias bilobus</i>	-	-	-	-	-	-
Okozekajika	<i>Nautichthys pribilovius</i>	-	-	-	-	-	-
Tsunosyachiuo	<i>Hypsogonus quadricornis</i>	-	-	-	-	-	-
Kitanotokubire	<i>Podothecus accipenserinus</i>	-	-	1	0.02	3	0.2
Onagatokubire	<i>Podothecus veterinus</i>	-	-	-	-	-	-
Fujitokubire	<i>Ulsina olrikii</i>	-	-	-	-	-	-
Tatetokubire	<i>Aspidophoroides monopterygius</i>	-	-	-	-	-	-
Kusauo-ruì	<i>Liparis</i> spp.	-	-	-	-	-	-
Mayugaji-ruì	<i>Lycodes</i> spp.	-	-	-	-	-	-
Togeginpo	<i>Eumesogrammus praecisus</i>	-	-	-	-	-	-
Yaseginpo	<i>Leptoclinus maculatus</i>	1	0.01	-	-	-	-
Unagigaji	<i>Lumpenus sagitta</i>	-	-	-	-	-	-
Nisemedamaginpo	<i>Anisarchus medius</i>	-	-	-	-	-	-
Kitaikanao	<i>Ammodytes hexapterus</i>	-	-	-	-	-	-
Ohyo	<i>Hippoglossus stenolepis</i>	1	3.8	10	32.5	-	-
Arasukaaburagarei	<i>Atheresthes stomias</i>	126	56.5	348	110.62	2	0.8
Akagarei-ruì	<i>Hippooglossoides</i> spp.	20	3.5	1325	480.45	10	4.55
Numagarei	<i>Platichthys stellatus</i>	-	-	-	-	-	-
Syumusyugarei	<i>Lepidopsetta bilineata</i>	2	1.6	61	18.05	25	5.5
Koganegarei	<i>Limanda aspera</i>	-	-	5	1.97	126	52.7
Karafutogarei	<i>Limanda sakhalinensis</i>	-	-	-	-	-	-
Tsunogarei	<i>Pleuronectes quadrituberculatus</i>	-	-	-	-	12	12.5
Hirenaganameta	<i>Glyptocephalus zachirus</i>	25	26.5	-	-	-	-
Iako-ruì	Octopuses	-	-	-	-	-	-
Ika-ruì	Squids	-	-	-	-	-	-
Aburagani	<i>Paralithodes platypus</i>	-	-	-	-	-	-
Zuwaigani	<i>Chionoecetes opilio</i>	-	-	3	1	13	5.3
Ozuwaigani	<i>Chionoecetes bairdi</i>	13	3.7	14	6.4	225	4.54
Hikiganirui	<i>Hyas</i> spp.	-	-	23	9.2	19	0.65
Yadokarirui	Hermit crabs	2	0.1	64	5.09	58	4.35
Tarabaebi-ruì	<i>Pandalus</i> spp.	4	0.05	-	-	3	0.03
Jyakoebi-ruì	Crangonidae spp.	-	-	-	-	2	0.05
Hizaragai-ruì	Chitons	-	-	-	-	-	-
Ezobai-ruì	Neptune whelks	5	0.4	74	6.41	118	10.5
Makigai-ruì	Conches	-	-	-	-	-	-
Nimaigai-ruì	Bivalves	-	-	-	-	5	0.12
Uni-ruì	Echinoids	48	2.9	7	2.14	-	-
Kashipan-ruì	Sand dollars	-	-	-	-	Uncountable	Unmeasurable
Hitode-ruì	Starfishes	1	0.6	69	7.56	Uncountable	Unmeasurable
Kumohitode-ruì	Ophiuroids	-	-	-	-	Uncountable	Unmeasurable
Tezurumozuru-ruì	Basket fishes	13	2.8	Uncountable	Unmeasurable	Uncountable	Unmeasurable
Isoginchaku-ruì	Actiniae	6	2.8	Uncountable	Unmeasurable	-	-
Kurage-ruì	Jellyfishes	1	1.5	Uncountable	Unmeasurable	-	-
Namako-ruì	Sea cucumbers	-	-	-	-	-	-
Umiushi-ruì	Sea slug	-	-	-	-	-	-
Hoya-ruì	Sea squirts	-	-	-	-	184	74
Kaimen-ruì	Sea cucumbers	-	-	-	-	-	-

Table 13: Data on catches by bottom trawl research (continued)

Species		OST 0804		OST 0805		OST 0806	
Japanese name	Scientific Name	Number	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)
Sokogangiei-ru	<i>Bathyraxia</i> spp.	-	-	-	-	-	-
Nishin	<i>Clupea pallasii</i>	141	1.6	188	2.75	49	0.8
Karafutoshisyamo	<i>Mallotus villosus</i>	15	0.3	4	0.1	6	0.1
Suketoudara	<i>Theragra chalcogramma</i>	10	0.07	5	0.3	69	0.44
Komai	<i>Eleginus gracilis</i>	-	-	-	-	-	-
Madara	<i>Gadus macrocephalus</i>	-	-	-	-	-	-
Hokkyokudara	<i>Boreogadus saida</i>	17	Unmeasurable	89	6.252	13	Unmeasurable
Kitanohokke	<i>Pleurogrammus monoptyerygius</i>	-	-	-	-	-	-
Hokkyokukajika	<i>Triglops pingeli</i>	-	-	-	-	-	-
Nameyokosujikajika	<i>Hemilepidotus jordani</i>	-	-	-	-	-	-
Shiberiatsumagurokajika	<i>Gymnocanthus tricuspis</i>	-	-	-	-	-	-
Gisukajika-ru1	<i>Myoxocephalus scorpius</i>	1	0.66	-	-	-	-
Gisukajika-ru2	<i>Myoxocephalus</i> sp.	-	-	-	-	-	-
Kourikajika-ru	<i>Icelus uncinialis</i>	-	-	1	0.01	-	-
Okikajika-ru	<i>Artediellus scaber</i>	-	-	-	-	-	-
Hokakeanahaze	<i>Blepsias bilobus</i>	-	-	-	-	-	-
Okozekajika	<i>Nautichthys pribilovius</i>	-	-	-	-	-	-
Tsunosyachiuo	<i>Hypsogonus quadricornis</i>	-	-	-	-	-	-
Kitanotokubire	<i>Podothecus accipenserinus</i>	-	-	-	-	-	-
Onagatokubire	<i>Podothecus veterinus</i>	-	-	-	-	-	-
Fujiitokubire	<i>Ulsina olrikii</i>	-	-	3	0.03	-	-
Tatetokubire	<i>Aspidophorodes monoptyerygius</i>	-	-	-	-	-	-
Kusauo-ru	<i>Liparis</i> spp.	9	0.36	11	2	3	0.1
Mayugaji-ru	<i>Lycodes</i> spp.	2	0.28	6	1	2	0.01
Togeginpo	<i>Eumesogrammus praecisus</i>	-	-	-	-	-	-
Yaseginpo	<i>Leptoclinus maculatus</i>	-	-	-	-	1	0.02
Unagigaji	<i>Lumpenus sagitta</i>	-	-	-	-	-	-
Nisemedamaginpo	<i>Anisarchus medius</i>	-	-	2	0.1	1	0.02
Kitaikanago	<i>Ammodytes hexapterus</i>	-	-	-	-	-	-
Ohyo	<i>Hippoglossus stenolepis</i>	-	-	-	-	-	-
Arasukaaburagarei	<i>Atheresthes stomias</i>	-	-	-	-	-	-
Akagarei-ru	<i>Hippoglossoides</i> spp.	13	0.68	26	1.85	21	0.25
Numagarei	<i>Platichthys stellatus</i>	-	-	-	-	-	-
Syumusyugarei	<i>Lepidopsetta bilineata</i>	-	-	-	-	-	-
Koganegarei	<i>Limanda aspera</i>	-	-	-	-	-	-
Karafutogarei	<i>Limanda sakhalinensis</i>	3	0.1	1	0.2	-	-
Tsunogarei	<i>Pleuronectes quadrituberculatus</i>	2	2.7	3	1.2	1	0.2
Hirenaganameta	<i>Glyptocephalus zachirus</i>	-	-	-	-	-	-
Tako-ru	Octopuses	-	-	-	-	-	-
Ika-ru	Squids	1	0.01	-	-	-	-
Aburagani	<i>Paralithodes platypus</i>	-	-	-	-	-	-
Zuwaigani	<i>Chionoecetes opilio</i>	28	2.1	207	13.43	206	8.72
Ozuwaigani	<i>Chionoecetes bairdi</i>	-	-	-	-	-	-
Hikiganirui	<i>Hyas</i> spp.	2	0.1	-	-	-	-
Yadokarirui	Hermit crabs	18	0.18	Uncountable	Unmeasurable	-	-
Tarabaebi-ru	<i>Pandalus</i> spp.	8	0.1	195	0.26	223	0.26
Jyakoebi-ru	Crangonidae spp.	10	0.1	77	0.3	249	1.36
Hizaragai-ru	Chitons	-	-	-	-	-	-
Ezobai-ru	Neptune whelks	21	1.2	23	1.7	-	-
Makigai-ru	Conches	338	1.4	-	-	Uncountable	Unmeasurable
Nimaigai-ru	Bivalves	2	0.02	-	-	Uncountable	Unmeasurable
Uni-ru	Echinoids	-	-	-	-	-	-
Kashipan-ru	Sand dollars	-	-	-	-	-	-
Hitode-ru	Starfishes	-	-	-	-	Uncountable	Unmeasurable
Kumohitode-ru	Ophiroids	Uncountable	Unmeasurable	Uncountable	Unmeasurable	2240	7.7
Tezurumozuru-ru	Basket fishes	Uncountable	Unmeasurable	-	-	-	-
Isoginchaku-ru	Actiniae	-	-	-	-	-	-
Kurage-ru	Jellyfishes	Uncountable	Unmeasurable	-	-	-	-
Namako-ru	Sea cucumbers	-	-	-	-	-	-
Umiushi-ru	Sea slug	-	-	-	-	-	-
Hoya-ru	Sea squirts	Uncountable	Unmeasurable	-	-	-	-
Kaimen-ru	Sea cucumbers	-	-	-	-	-	-

Table 13: Data on catches by bottom trawl research (continued)

Species		OST 0807		OST 0808		OST 0809	
Japanese name	Scientific Name	Number	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)
Sokogangiei-rui	<i>Bathyraxia</i> spp.	-	-	-	-	-	-
Nishin	<i>Clupea pallasii</i>	130	3.65	11	0.5	-	-
Karafutoshisayama	<i>Mallotus villosus</i>	72	2.051	-	-	-	-
Suketoudara	<i>Theragra chalcogramma</i>	49	0.3	10	0.08	-	-
Komai	<i>Eleginus gracilis</i>	-	-	-	-	-	-
Madara	<i>Gadus macrocephalus</i>	-	-	-	-	-	-
Hokkyokudara	<i>Boreogadus saida</i>	13	Unmeasurable	1	0.03	35	Unmeasurable
Kitanohokke	<i>Pleurogrammus monopterygius</i>	-	-	-	-	-	-
Hokkyokukajika	<i>Triglops pingeli</i>	-	-	-	-	-	-
Nameyokosujikajika	<i>Hemilepidotus jordani</i>	-	-	-	-	-	-
Shiberiatsumagurokajika	<i>Gymnocanthus tricuspis</i>	-	-	-	-	-	-
Gisukajika-rui1	<i>Myoxocephalus scorpius</i>	-	-	-	-	18	0.96
Gisukajika-rui2	<i>Myoxocephalus</i> sp.	-	-	-	-	3	0.06
Kourikajika-rui	<i>Icelus uncinatus</i>	-	-	-	-	-	-
Okikajika-rui	<i>Arctiellus scaber</i>	-	-	-	-	1	0.02
Hokakeanahaze	<i>Blepsias bilobus</i>	-	-	-	-	-	-
Okozekajika	<i>Nautichthys pribilovius</i>	-	-	-	-	3	0.03
Tsunosyachiuo	<i>Hypsogonus quadricornis</i>	-	-	-	-	3	0.05
Kitanotokubire	<i>Podothecus accipenserinus</i>	-	-	-	-	-	-
Onagatokubire	<i>Podothecus veterinus</i>	-	-	-	-	-	-
Fujiitokubire	<i>Ulsina olrikii</i>	2	0.05	-	-	-	-
Tatetokubire	<i>Aspidophoroides monopterygius</i>	-	-	-	-	-	-
Kusauo-rui	<i>Liparis</i> spp.	3	0.08	1	0.03	-	-
Mayugaji-rui	<i>Lycodes</i> spp.	2	0.72	-	-	1	0.03
Togeginpo	<i>Eumesogrammus praecisus</i>	-	-	-	-	1	0.02
Yaseginpo	<i>Leptoclinus maculatus</i>	-	-	-	-	-	-
Unagigaji	<i>Lumpenus sagitta</i>	-	-	-	-	-	-
Nisemedamaginpo	<i>Anisarchus medius</i>	-	-	-	-	-	-
Kitaikanago	<i>Ammodytes hexapterus</i>	-	-	-	-	-	-
Ohyo	<i>Hippoglossus stenolepis</i>	-	-	-	-	-	-
Arasukaaburagarei	<i>Atheresthes stomias</i>	-	-	-	-	-	-
Akagarei-rui	<i>Hippoglossoides</i> spp.	51	0.46	9	0.5	-	-
Numagarei	<i>Platichthys stellatus</i>	-	-	-	-	-	-
Syumusyugarei	<i>Lepidopsetta bilineata</i>	-	-	-	-	-	-
Koganegarei	<i>Limanda aspera</i>	-	-	-	-	-	-
Karafutogarei	<i>Limanda sakhalinensis</i>	-	-	-	-	-	-
Tsunogarei	<i>Pleuronectes quadrituberculatus</i>	3	0.78	1	0.2	-	-
Hirenaganameta	<i>Glyptocephalus zachirus</i>	-	-	-	-	-	-
Tako-rui	Octopuses	-	-	-	-	1	0.01
Ika-rui	Squids	-	-	-	-	-	-
Aburagani	<i>Paralithodes platypus</i>	-	-	-	-	-	-
Zuwaigani	<i>Chionoecetes opilio</i>	368	13.5	707	3.4	29	0.47
Ozuwaigani	<i>Chionoecetes bairdi</i>	-	-	-	-	-	-
Hikiganirui	<i>Hyas</i> spp.	1	0.1	2	0.07	419	2.3
Yadokarirui	Hermit crabs	30	0.28	15	0.2	8	0.2
Tarabaebi-rui	<i>Pandalus</i> spp.	136	0.38	9	0.02	297	0.43
Jyakoebi-rui	Crangonidae spp.	-	-	76	0.4	38	0.46
Hizaragai-rui	Chitons	-	-	-	-	4	0.04
Ezobai-rui	Neptune whelks	94	1.26	41	0.75	4	0.5
Makigai-rui	Conches	22	0.25	34	0.84	-	-
Nimaigai-rui	Bivalves	-	-	1	0.02	10	0.41
Uni-rui	Echinoids	-	-	-	-	2592	39.96
Kashipan-rui	Sand dollars	-	-	-	-	-	-
Hitode-rui	Starfishes	Uncountable	Unmeasurable	Uncountable	Unmeasurable	2	0.03
Kumohitode-rui	Ophiuroids	-	-	-	-	-	-
Tezurumozuru-rui	Basket fishes	Uncountable	Unmeasurable	Uncountable	Unmeasurable	-	-
Isoginchaku-rui	Actiniae	-	-	-	-	-	-
Kurage-rui	Jellyfishes	-	-	Uncountable	Unmeasurable	-	-
Namako-rui	Sea cucumbers	-	-	-	-	6	0.37
Umiushi-rui	Sea slug	-	-	-	-	-	-
Hoya-rui	Sea squirts	-	-	-	-	774	37.41
Kaimen-rui	Sea cucumbers	-	-	-	-	Uncountable	0.2

Table 13: Data on catches by bottom trawl research (continued)

Japanese name	Species Scientific Name	OST 0810		OST 0811		OST 0812	
		Number	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)
Sokogangiei-rui	<i>Bathyraxia</i> spp.	-	-	-	-	-	-
Nishin	<i>Clupea pallasii</i>	-	-	-	-	-	-
Karafutoshisyamo	<i>Mallotus villosus</i>	1	0.03	1	0.05	-	-
Suketoudara	<i>Theragra chalcogramma</i>	-	-	-	-	-	-
Komai	<i>Eleginus gracilis</i>	1	0.07	-	-	2	0.06
Madara	<i>Gadus macrocephalus</i>	-	-	-	-	-	-
Hokkyokudara	<i>Boreogadus saida</i>	22	Unmeasurable	252	Unmeasurable	79	Unmeasurable
Kitanohokke	<i>Pleurogrammus monopterygius</i>	-	-	-	-	-	-
Hokkyokukajika	<i>Triglops pingeli</i>	1	0.1	1	0.05	-	-
Nomeyokosujikajika	<i>Hemilepidotus jordani</i>	-	-	-	-	-	-
Shiberiatsumagurokajika	<i>Gymnocanthus tricuspidis</i>	6	0.1	43	0.23	-	-
Gisukajika-rui1	<i>Myoxocephalus scorpius</i>	4	0.08	11	0.07	3	0.03
Gisukajika-rui2	<i>Myoxocephalus</i> sp.	-	-	-	-	-	-
Kourikajika-rui	<i>Icelus uncinatus</i>	-	-	-	-	-	-
Okikajika-rui	<i>Arctodiellus scaber</i>	14	0.07	-	-	-	-
Hokakeanahaze	<i>Blepsias bilobus</i>	-	-	1	0.2	-	-
Okozekajika	<i>Nautichthys pribilovius</i>	-	-	-	-	-	-
Tsunosyachiuo	<i>Hypsogonus quadricornis</i>	-	-	-	-	-	-
Kitanotokubire	<i>Podothecus accipenserinus</i>	-	-	-	-	-	-
Onagatokubire	<i>Podothecus veterinus</i>	-	-	-	-	-	-
Fujitokubire	<i>Ulsina olrikii</i>	-	-	-	-	-	-
Tatetokubire	<i>Aspidophoroides monopterygius</i>	-	-	-	-	-	-
Kusauo-rui	<i>Liparis</i> spp.	1	0.04	2	0.05	1	0.03
Mayugaji-rui	<i>Lycodes</i> spp.	-	-	-	-	-	-
Togeginpo	<i>Eumesogrammus praecisus</i>	-	-	-	-	-	-
Yaseginpo	<i>Leptoclinus maculatus</i>	-	-	-	-	-	-
Unagigaji	<i>Lumpenus sagitta</i>	2	0.01	1	0.02	-	-
Nisemedamaginpo	<i>Anisarchus medius</i>	-	-	-	-	-	-
Kitaikanago	<i>Ammodytes hexapterus</i>	-	-	-	-	-	-
Ohyo	<i>Hippoglossus stenolepis</i>	-	-	-	-	-	-
Arasukaaburagarei	<i>Atheresthes stomias</i>	-	-	-	-	-	-
Akagarei-rui	<i>Hippooglossoides</i> spp.	-	-	-	-	-	-
Numagarei	<i>Platichthys stellatus</i>	-	-	-	-	-	-
Syumusyugarei	<i>Lepidopsetta bilineata</i>	-	-	-	-	-	-
Koganegarei	<i>Limanda aspera</i>	-	-	-	-	-	-
Karafutogarei	<i>Limanda sakhalinensis</i>	-	-	-	-	-	-
Tsunogarei	<i>Pleuronectes quadrituberculatus</i>	-	-	-	-	-	-
Hirenaganameta	<i>Glyptocephalus zachirus</i>	-	-	-	-	-	-
Tako-rui	Octopuses	-	-	-	-	-	-
Ika-rui	Squids	-	-	-	-	-	-
Aburagani	<i>Paralithodes platypus</i>	-	-	2	0.9	-	-
Zuwaigani	<i>Chionoecetes opilio</i>	974	6.3	41	1.4	11	0.35
Ozuwaigani	<i>Chionoecetes bairdi</i>	-	-	-	-	-	-
Hikiganirui	<i>Hyas</i> spp.	229	3.05	49	2.3	32	0.95
Yadokarirui	Hermit crabs	62	0.55	85	2.6	195	3.85
Tarabaebi-rui	<i>Pandalus</i> spp.	689	0.8	369	0.4	312	0.3
Jyakoebi-rui	Crangonidae spp.	228	1.05	203	1.3	122	0.4
Hizaragai-rui	Chitons	-	-	1	0.05	-	-
Ezobai-rui	Neptune whelks	36	0.55	3	0.6	16	0.9
Makigai-rui	Conches	-	-	1	0.02	-	-
Nimaigai-rui	Bivalves	11	0.6	-	-	-	-
Uni-rui	Echinoids	7	0.7	-	-	-	-
Kashipan-rui	Sand dollars	-	-	78	0.3	-	-
Hitode-rui	Starfishes	34	2.9	60	5.7	52	3.4
Kumohitode-rui	Ophiuroids	-	-	-	-	51	0.4
Tezurumozuru-rui	Basket fishes	-	-	60	7.5	28	1.9
Isoginchaku-rui	Actiniae	34	2.05	4	0.2	14	0.5
Kurage-rui	Jellyfishes	-	-	-	-	1	2.6
Namako-rui	Sea cucumbers	755	41.83	-	-	-	-
Umiushi-rui	Sea slug	-	-	1	0.1	-	-
Hoya-rui	Sea squirts	275	25.02	236	28.18	Uncountable	2.02
Kaimen-rui	Sea cucumbers	-	-	-	-	-	-

Table 13: Data on catches by bottom trawl research (continued)

Japanese name	Species Scientific Name	OST 0813		OST 0814		OST 0815	
		Number	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)
Sokogangiei-ru	<i>Bathyraxia</i> spp.	-	-	-	-	-	-
Nishin	<i>Clupea pallasii</i>	1	0.03	4	0.1	1349	131.5
Karafutoshisyamo	<i>Mallotus villosus</i>	15	0.06	9	0.6	12	0.09
Suketoudara	<i>Theragra chalcogramma</i>	-	-	-	-	-	-
Komai	<i>Eleginus gracilis</i>	6	0.02	6	0.02	10	0.19
Madara	<i>Gadus macrocephalus</i>	-	-	-	-	-	-
Hokkyokudara	<i>Boreogadus saida</i>	80	0.51	150	1.5	3	0.04
Kitanohokke	<i>Pleurogrammus monopterygius</i>	-	-	-	-	-	-
Hokkyokukajika	<i>Triglops pingeli</i>	-	-	-	-	-	-
Nameyokosujikajika	<i>Hemilepidotus jordani</i>	-	-	-	-	-	-
Shiberiatsumagurokajika	<i>Gymnocanthus tricuspidatus</i>	1	0.03	3	0.07	28	0.54
Gisukajika-ru1	<i>Myoxocephalus scorpius</i>	1	0.15	3	0.13	24	0.87
Gisukajika-ru2	<i>Myoxocephalus</i> sp.	-	-	-	-	-	-
Kourikajika-ru1	<i>Icelus uncinatus</i>	-	-	-	-	-	-
Okikajika-ru1	<i>Arctiomeria scaber</i>	1	0.03	-	-	-	-
Hokakeanahaze	<i>Blepiopsis bilobus</i>	-	-	-	-	-	-
Okozekajika	<i>Nautichthys pribilofensis</i>	1	0.02	-	-	2	0.08
Tsunosyachiuo	<i>Hypsogonius quadricornis</i>	-	-	-	-	-	-
Kitanotokubire	<i>Podotrichus accipenserinus</i>	-	-	-	-	-	-
Onagatokubire	<i>Podotrichus veteris</i>	-	-	1	0.03	-	-
Fujitokubire	<i>Ulsina olrikii</i>	1	0.01	-	-	-	-
Tatetokubire	<i>Aspidophoroides monopterygius</i>	-	-	1	0.01	-	-
Kusauo-ru1	<i>Liparis</i> spp.	-	-	1	0.05	-	-
Mayugaji-ru1	<i>Lycodes</i> spp.	5	0.04	2	0.04	2	0.07
Togeginpo	<i>Eumesogrammus praecisus</i>	-	-	-	-	-	-
Yaseginpo	<i>Leptoclinus maculatus</i>	-	-	1	0.01	-	-
Unagigaji	<i>Lumpenus sagitta</i>	6	0.06	272	1.6	220	3.03
Nisemedamaginpo	<i>Anisarchus medius</i>	-	-	4	0.08	-	-
Kitaikanago	<i>Ammodytes hexapterus</i>	-	-	-	-	12	0.09
Ohyo	<i>Hippoglossus stenolepis</i>	-	-	-	-	-	-
Arasukaaburagarei	<i>Atheresthes stomias</i>	-	-	-	-	-	-
Akagarei-ru1	<i>Hippoglossoides</i> spp.	5	0.07	79	3.3	41	0.86
Numagarei	<i>Platichthys stellatus</i>	-	-	-	-	3	6.4
Syumusyugarei	<i>Lepidopsetta bilineata</i>	-	-	-	-	-	-
Koganegarei	<i>Limanda aspera</i>	2	0.09	1	0.15	11	0.64
Karafutogarei	<i>Limanda sakhalinensis</i>	-	-	-	-	-	-
Tsunogarei	<i>Pleuronectes quadrituberculatus</i>	-	-	-	-	-	-
Hirenaganameta	<i>Glyptocephalus zachirus</i>	-	-	-	-	-	-
Tako-ru1	Octopuses	-	-	-	-	-	-
Ika-ru1	Squids	-	-	-	-	-	-
Aburagani	<i>Paralithodes platypus</i>	-	-	-	-	1	0.9
Zuwaigani	<i>Chionoecetes opilio</i>	2160	15.93	1080	36.72	4103	46.5
Ozuwaigani	<i>Chionoecetes bairdi</i>	-	-	-	-	-	-
Hikiganirui	<i>Hyas</i> spp.	192	4	-	-	-	-
Yadokarirui	Hermit crabs	333	9	36	0.9	652	17.5
Tarabaebi-ru1	<i>Pandalus</i> spp.	284	0.35	8	0.06	7	0.02
Jyakoebi-ru1	Crangonidae spp.	251	1.2	188	1	131	0.6
Hizaragai-ru1	Chitons	7	0.13	-	-	-	-
Ezobai-ru1	Neptune whelks	99	3.7	56	2	1682	92.5
Makigai-ru1	Conches	-	-	-	-	-	-
Nimaigai-ru1	Bivalves	-	-	1	0.05	4	0.42
Uni-ru1	Echinoids	-	-	-	-	293	20.5
Kashipan-ru1	Sand dollars	-	-	-	-	-	-
Hitode-ru1	Starfishes	128	7.7	52	6.4	439	46.5
Kumohitode-ru1	Ophiuroids	-	-	-	-	-	-
Tezurumozuru-ru1	Basket fishes	34	2.2	-	-	71	7
Isoginchaku-ru1	Actiniae	21	0.75	47	1.6	583	14
Kurage-ru1	Jellyfishes	-	-	-	-	-	-
Namako-ru1	Sea cucumbers	-	-	-	-	13	0.07
Umiushi-ru1	Sea slug	2	0.04	-	-	-	-
Hoya-ru1	Sea squirts	Uncountable	10.2	-	-	-	-
Kaimen-ru1	Sea cucumbers	-	-	-	-	-	-

8. Data on Plankton Collected by Vertical Hauls of a Twin-NORPAC Net

Vertical hauls with a twin-NORPAC net were made at hydrographic stations. This net was composed of 45 cm mouth diameter and 180 cm long conical one which was made of GG54 and XX13 having 0.33 mm and 0.10 mm mesh, respectively. The net was lowered to the estimated depth of 150 m, 500 m or near the bottom when the bottom depth was shallower than 150 m, and immediately hauled to the surface at a speed about 1 m s^{-1} . A flowmeter was mounted at the center of mouth of the net to estimate the volume water filtered. Sampling was conducted by research staffs and measurement of wet weight of the samples were made by A. Yamaguchi, H.S. Kim, K. Matsuno, R. Saito, K. Ohgi, Y. Onishi, Y. Hanamiya and T. Homma (Laboratory of Marine Biology).

Table 14: Data on plankton collected by vertical hauls with a single or twin NORPAC net.

GG54:0.33mm mesh, XX13:0.10mm mesh.

Station no.	Position		S.M.T.		Length of wire (m)	Angle of wire (°)	Depth estimated by wire angle (m)	Kind of cloth	Flowmeter		Estimated volume of water filtered (m^3)	Wet weight (g)		Sample no.
	Lat. (N)	Lon.	Date	Hour					No.	Reading		per haul	per 1000 m^3	
OS08053 (Site H)	41	145 E	3 June	10:44	151	8	150	GG54 1333	1542		23.58	16.39	694.83	08101
								XX13 2562	1382		21.31			08102
								GG54 1333	4538		69.40	23.41	337.26	08103
				11:24	504	7	500	XX13 2562	3946		60.84			08104
Extra	40	153 E	4 June	22:10	150	4	150	GG54 1333	1321		20.20	3.37	166.57	08105
								XX13 2562	1414		21.80			08106
Extra	38	165 E	5 June	22:09	151	9	149	GG54 1333	1546		23.64	80.85	3419.50	5) 08107
								XX13 2562	1482		22.85			08108
OS08054	38	170 E	7 June	20:41	152	10	150	GG54 1333	1754		26.82	52.23	1947.01	5) 08109
								XX13 2562	1315		20.28			08110
OS08057	39	170 E	8 June	10:03	155	14	150	GG54 1333	1928		29.48	62.59	2122.67	5) 08111
								XX13 2562	1559		24.04			08112
				10:13	511	13	498	GG54 1333	5159		78.89	73.65	933.46	5) 08113
								XX13 2562	3315		51.11			08114
OS08061	40	170 E	9 June	15:15	154	13	150	GG54 1333	1362		20.83	8.35	400.65	08115
								XX13 2562	1061		16.36			08116
OS08064	42	170 E	10 June	01:57	152	9	150	GG54 1333	1405		21.49	12.55	583.87	08117
								XX13 2562	1232		19.00			08118
OS08067	43	170 E	10 June	13:07	155	14	150	GG54 1333	1506		23.03	9.87	428.34	08119
								XX13 2562	1221		18.83			08120
				13:20	526	18	500	GG54 1333	4670		71.42	18.95	265.27	08121
								XX13 2562	3629		55.95			08122
OS08071	45	170 E	11 June	06:10	152	10	150	GG54 1333	1322		20.22	9.49	469.16	08123
								XX13 2562	1163		17.93			08124
				06:18	526	18	500	GG54 1333	4723		72.23	19.83	274.48	08125
								XX13 2562	3906		60.23			08126
OS08073	50	175 E	12 June	15:37	158	18	150	GG54 1333	1702		26.03	20.59	790.88	08127
								XX13 2562	1212		18.69			08128
OS08075	51	175 E	12 June	22:36	151	8	150	GG54 1333	1322		20.22	10.75	531.49	08129
								XX13 2562	1579		24.35			08130
OS08078	53	178 E	13 June	18:12	150	6	149	GG54 1333	1279		19.56	16.95	866.34	08131
								XX13 2562	1069		16.48			08132
				18:23	515	14	500	GG54 1333	4535		69.35	25.05	361.13	08133
								XX13 2562	3682		56.77			08134
OS08080	53	179 E	13 June	23:36	153	12	150	GG54 1333	1430		21.87	13.47	615.73	08135
								XX13 2562	1080		16.65			08136
OS08084	53	179 W	13 June	14:31	151	6	150	GG54 1333	1332		20.37	21.73	1066.53	08137
								XX13 2562	1059		16.33			08138
OS08086	53	177 W	13 June	20:23	150	2	150	GG54 1333	1289		19.71	7.71	390.88	08139
								XX13 2562	960		14.80			08140
OS08087	53	177 W	14 June	01:20	150	3	150	GG54 1333	1221		18.67	17.39	931.06	08141
								XX13 2562	1055		16.27			08142
OS08088	51	179 W	16 June	08:42	150	2	150	GG54 1333	1225		18.73	11.73	625.89	08143
								XX13 2562	1053		16.24			08144

1) Exclusively phytoplankton

2) Including some fragments of medusae.

3) *Neocalanus* abundant.

4) Gelatinous zooplankton abundant.

5) Salpida abundant.

6) Chaetognaths abundant.

Table 14: Data on plankton collected by vertical hauls with a single or twin NORPAC net.

GG54:0.33mm mesh, XX13:0.10mm mesh.

Station no.	Position		S.M.T.		Length of wire (m)	Angle of wire (°)	Depth estimated by wire angle (m)	Kind of cloth	Flowmeter		Estimated volume of water filtered (m ³)	Wet weight (g)		Sample no.
	Lat. (N)	Lon.	Date	Hour					No.	Reading		per haul	per 1000 m ³	
OS08089	50	179 W	16 June	13:36	151	6	150	GG54	1333	1330	20.34	9.17	450.61	08145
								XX13	2562	1130	17.42			08146
OS08090	50	179 W	16 June	20:51	155	14	150	GG54	1333	1419	21.70	20.13	927.41	08147
								XX13	2562	1092	16.84			08148
OS08091	50	179 W	17 June	03:13	158	17	151	GG54	1333	1406	21.50	12.19	566.71	08149
								XX13	2562	1005	15.50			08150
OS08093	49	179 W	17 June	10:05	154	13	150	GG54	1333	1500	22.94	15.53	676.80	08151
								XX13	2562	1240	19.12			08152
OS08094	49	174 W	18 June	09:48	156	15	151	GG54	1333	1413	21.61	6.77	313.07	08153
								XX13	2562	1264	19.49			08154
OS08095	50	172 W	19 June	04:23	152	11	149	GG54	1333	1458	22.30	13.15	589.55	08155
								XX13	2562	1166	17.98			08156
OS08096	50	171 W	19 June	10:45	152	10	150	GG54	1333	1342	20.52	11.85	577.17	08157
								XX13	2562	1100	16.96			08158
OS08097	51	172 W	19 June	15:07	151	8	150	GG54	1333	1300	19.88	8.79	441.89	08159
								XX13	2562	850	13.11			08160
OS08099	51	172 W	20 June	02:50	153	12	150	GG54	1333	1240	18.96	12.89	679.49	08161
								XX13	2562	670	10.33			08162
OS08102	55	166 W	24 June	16:37	131	0	131	GG54	2562	1240	16.23	17.49	1077.22	08163
								XX13	2374	985	15.67			08164
OS08103	55	166 W	24 June	20:58	118	13	115	GG54	2562	1268	16.60	25.49	1535.42	08165
								XX13	2374	770	12.25			08166
OS08104	56	166 W	25 June	00:28	113	15	109	GG54	2562	1338	17.51	10.65	607.79	08167
								XX13	2374	596	9.48			08168
OS08105	56	167 W	25 June	04:23	136	21	127	GG54	2562	1437	18.81	22.03	1170.90	08169
								XX13	2374	606	9.64			08170
OS08106	56	168 W	25 June	08:18	138	16	133	GG54	2562	1281	16.77	3.87	230.50	08171
								XX13	2374	435	6.92			08172
OS08109	56	168 W	26 June	04:54	112	13	109	GG54	2562	1168	15.29	15.99	1045.52	08173
								XX13	2374	260	4.14			08174
OS08110	56	167 W	26 June	08:47	100	13	97	GG54	2562	930	12.17	9.53	782.43	08175
								XX13	2374	303	4.82			08176
OS08111	56	166 W	26 June	15:02	82	10	81	GG54	2562	828	10.84	13.41	1236.80	6) 08177
								XX13	2555	193	3.92			08178
OS08112	57	166 W	26 June	19:52	65	8	64	GG54	2562	589	7.71	6.95	900.78	6) 08179
								XX13	2555	138	2.80			08180
OS08113	57	167 W	27 June	00:37	68	10	67	GG54	2562	506	6.62	1.11	166.83	08181
								XX13	3006	128	2.04			08182
OS08114	57	168 W	27 June	04:28	73	8	72	GG54	2562	679	8.89	2.97	333.59	08183
								XX13	3006	203	3.23			08184
OS08115	56	169 W	27 June	11:42	153	11	150	GG54	2562	1577	20.64	7.21	349.03	08185
								XX13	3006	1623	21.07			08186
OS08116	55	169 W	27 June	16:13	155	14	150	GG54	2562	1413	18.50	10.21	551.74	08187
								XX13	3006	516	6.75			08188
OS08117	56	169 W	28 June	00:38	100	14	97	GG54	2562	1120	14.66	15.29	1042.58	08189
								XX13	1333	356	5.05			08190
OS08118	57	169 W	28 June	04:46	76	18	72	GG54	2562	738	9.66	21.71	2246.80	08191
								XX13	1333	348	4.94			08192
OS08119	57	169 W	28 June	08:32	63	7	63	GG54	2562	575	7.53	9.29	1233.60	1) 08193
								XX13	1333	342	4.85			08194
OS08120	57	168 W	28 June	14:00	63	7	63	GG54	2562	541	7.08	9.77	1378.91	08195
								XX13	1333	220	3.12			08196
OS08121	57	167 W	28 June	17:15	63	4	63	GG54	1333	536	7.60	5.75	1891.75	1) 08197
								XX13	2562	232	3.04			08198
OS08122	57	165 W	28 June	21:42	60	5	60	GG54	1333	478	6.78	5.59	2666.64	08199
								XX13	2562	160	2.09			08200
OS08123	58	166 W	29 June	04:09	50	0	50	GG54	1333	409	5.80	2.51	2305.64	08201
								XX13	2562	83	1.09			08202
OS08124	59	166 W	29 June	09:59	21	2	21	GG54	1333	180	2.55	2.29	3117.16	08203
								XX13	2562	56	0.73			08204
OS08125	60	168 W	29 June	20:02	22	2	22	GG54	1333	185	2.62	0.91	864.21	08205

1) Exclusively phytoplankton

2) Including some fragments of medusae.

3) *Neocalanus* abundant.

4) Gelatinous zooplankton abundant.

5) *Salpida* abundant.

6) Chaetognaths abundant.

Table 14: Data on plankton collected by vertical hauls with a single or twin NORPAC net.

GG54:0.33mm mesh, XX13:0.10mm mesh.

Station no.	Position		S.M.T.		Length of wire (m)	Angle of wire (°)	Depth estimated by wire angle (m)	Kind of cloth	Flowmeter		Estimated volume of water filtered (m ³)	Wet weight (g)		Sample no.
	Lat. (N)	Lon.	Date	Hour					No.	Reading		per haul	per 1000 m ³	
OS08126	61	173 W	30 June	12:24	60	0	60	XX13	2562	80	1.05			08206
								GG54	1333	337	4.78	3.77	2025.53	08207
								XX13	2562	142	1.86			08208
OS08127	62	174 W	30 June	14:23	60	11	59	GG54	1333	545	7.73	2.93	1354.26	08209
								XX13	2562	165	2.16			08210
OS08128	62	174 W	30 June	17:24	59	9	58	GG54	1333	567	8.04	2.35	861.27	08211
								XX13	2562	208	2.72			08212
OS08129	62	174 W	30 June	20:05	64	9	63	GG54	1333	649	9.21	1.57	459.84	08213
								XX13	2562	260	3.40			08214
OS08130	62	172 W	1 July	01:13	51	9	50	GG54	1333	383	5.43	3.17	1196.97	08215
								XX13	2562	202	2.64			08216
OS08131	62	173 W	1 July	07:08	62	6	62	GG54	1333	570	8.09	1.75	493.73	08217
								XX13	2562	270	3.53			08218
OS08132	63	172 W	1 July	15:38	54	7	54	GG54	1333	542	7.69	3.19	1158.65	08219
								XX13	2562	210	2.75			08220
OS08133	63	172 W	1 July	18:23	55	6	55	GG54	1333	488	6.92	1.67	510.83	08221
								XX13	2562	249	3.26			08222
OS08134	63	172 W	1 July	20:13	54	11	53	GG54	1333	528	7.49	1.57	446.11	08223
								XX13	2562	268	3.51			08224
OS08135	62	171 W	1 July	22:27	44	10	43	GG54	1333	400	5.67	2.31	1017.86	08225
								XX13	2562	173	2.26			08226
OS08136	62	171 W	2 July	06:53	39	11	38	GG54	1333	356	5.05	3.39	1175.43	08227
								XX13	2562	220	2.88			08228
OS08137	63	166 W	2 July	20:34	19	6	19	GG54	1333	182	2.58	1.55	922.10	08229
								XX13	2562	128	1.68			08230
OS08138	63	167 W	2 July	23:39	27	4	27	GG54	1333	243	3.45	2.31	1479.74	08231
								XX13	2562	119	1.56			08232
OS08139	63	167 W	3 July	04:46	27	2	27	GG54	1333	250	3.55	3.05	1817.35	08233
								XX13	2562	128	1.68			08234
OS08140	63	167 W	3 July	09:48	20	6	20	GG54	1333	193	2.74	1.65	1064.99	08235
								XX13	2562	118	1.54			08236
OS08141	63	166 W	3 July	13:42	16	4	16	GG54	1333	168	2.38	1.85	1532.04	08237
								XX13	2562	92	1.20			08238
OS08142	63	165 W	3 July	17:00	15	2	15	GG54	1333	146	2.07	1.09	828.88	6) 08239
								XX13	2562	100	1.31			08240
OS08143	63	166 W	3 July	19:45	20	4	20	GG54	1333	192	2.72	2.15	1260.51	08241
								XX13	2562	130	1.70			08242
OS08144	64	166 W	3 July	22:53	23	4	23	GG54	1333	216	3.06	2.07	1204.23	08243
								XX13	2562	131	1.71			08244
OS08150	66	168 W	7 July	06:09	47	6	47	GG54	1333	423	7.06	5.47	2574.17	1) 08245
								XX13	2562	145	2.12			08246
OS08151	66	168 W	7 July	11:32	36	7	36	GG54	1333	398	6.65	3.93	1150.53	08247
								XX13	2562	233	3.41			08248
OS08152	67	168 W	7 July	15:35	39	16	37	GG54	1333	529	8.83	2.93	537.03	08249
								XX13	2562	372	5.45			08250
OS08153	67	168 W	7 July	18:45	42	6	42	GG54	1333	310	5.18	4.09	1835.54	1) 08251
								XX13	2562	152	2.23			08252
OS08154	69	168 W	8 July	15:48	35	2	35	GG54	1333	323	5.39	1.17	239.66	08253
								XX13	2562	332	4.86			08254
OS08155	70	168 W	8 July	18:06	41	6	41	GG54	1333	380	6.35	4.81	914.14	08255
								XX13	2562	359	5.26			08256
OS08156	70	167 W	8 July	21:12	39	3	39	GG54	1333	480	8.01	5.59	1017.20	08257
								XX13	2562	375	5.49			08258
OS08157	70	166 W	8 July	23:29	38	5	38	GG54	1333	342	5.71	4.13	866.87	08259
								XX13	2562	325	4.76			08260
OS08158	70	166 W	9 July	01:57	41	11	40	GG54	1333	395	6.60	3.33	594.49	08261
								XX13	2562	382	5.59			08262
OS08159	70	166 W	9 July	04:21	35	7	35	GG54	1333	312	5.21	5.03	1056.01	08263
								XX13	2562	325	4.76			08264
OS08160	70	166 W	9 July	06:36	37	14	36	GG54	1333	425	7.10	2.59	681.67	08265
								XX13	2562	259	3.79			08266

1) Exclusively phytoplankton

2) Including some fragments of medusae.

3) *Neocalanus* abundant.

4) Gelatinous zooplankton abundant.

5) Salpida abundant.

6) Chaetognaths abundant.

Table 14: Data on plankton collected by vertical hauls with a single or twin NORPAC net.

GG54:0.33mm mesh, XX13:0.10mm mesh.

Station no.	Position		S.M.T.		Length of wire (m)	Angle of wire (°)	Depth estimated by wire angle (m)	Kind of cloth	Flowmeter		Estimated volume of water filtered (m^3)	Wet weight (g)		Sample no.
	Lat. (N)	Lon.	Date	Hour					No.	Reading		per haul	per 1000 m^3	
OS08161	71	166 W	9 July	08:49	36	8	36	GG54	1333	340	5.68	2.13	556.07	1) 08267
								XX13	2562	261	3.82			08268
OS08162	70	166 W	9 July	20:34	40	2	40	GG54	1333	358	5.98	2.63	597.62	08269
								XX13	2562	300	4.39			08270
OS08163	70	166 W	9 July	22:49	36	3	36	GG54	1333	311	5.19	3.55	786.10	08271
								XX13	2562	308	4.51			08272
OS08164	70	164 W	10 July	03:47	38	7	38	GG54	1333	333	5.56	3.67	740.58	08273
								XX13	2562	338	4.95			08274
OS08165	70	163 W	10 July	06:45	27	4	27	GG54	1333	251	4.19	1.77	446.47	08275
								XX13	2562	270	3.95			08276
OS08166	70	163 W	10 July	11:42	20	11	20	GG54	1333	205	3.42	1.49	492.35	08277
								XX13	2562	206	3.02			08278
OS08167	70	164 W	10 July	16:07	34	2	34	GG54	1333	312	5.21	4.97	1149.51	08279
								XX13	2562	295	4.32			08280
OS08168	70	166 W	10 July	20:03	38	2	38	GG54	1333	311	5.19	2.27	797.41	08281
								XX13	2562	194	2.84			08282
OS08169	69	168 W	11 July	08:29	40	9	40	GG54	1333	340	5.68	3.39	1055.67	08283
								XX13	2562	219	3.21			08284
OS08170	69	167 W	11 July	14:45	40	3	40	GG54	1333	337	5.63	3.65	797.92	08285
								XX13	2562	312	4.57			08286
OS08171	68	166 W	12 July	02:26	38	7	38	GG54	1333	349	5.83	4.25	850.23	08287
								XX13	2562	341	4.99			08288
OS08172	68	167 W	12 July	05:01	43	8	43	GG54	1333	360	6.01	1.49	266.91	08289
								XX13	2562	380	5.56			08290
OS08173	68	168 W	12 July	08:02	45	8	45	GG54	1333	392	6.55	3.01	566.96	08291
								XX13	2562	362	5.30			08292
OS08174	68	168 W	12 July	14:32	46	3	46	GG54	1333	395	6.60	3.69	772.03	08293
								XX13	2562	326	4.77			08294
OS08175	68	167 W	12 July	18:39	39	8	39	GG54	1333	342	5.71	2.41	476.11	08295
								XX13	2562	345	5.05			08296
OS08176	67	168 W	12 July	23:53	42	4	42	GG54	1333	358	5.98	9.83	4385.87	1) 08297
								XX13	2562	153	2.24			08298
OS08177	66	167 W	13 July	06:37	27	10	27	GG54	1333	230	3.84	1.75	480.57	08299
								XX13	2562	248	3.63			08300
OS08178	66	168 W	13 July	15:14	38	15	37	GG54	1333	356	5.94	3.79	764.83	08301
								XX13	2562	338	4.95			08302
Extra	50	166 E	25 July	00:00	150	6	149	GG54	1333	1250	19.45	3.85	205.34	08303
								XX13	2562	1288	18.72			08304
Extra	47	161 E	25 July	21:57	152	10	150	GG54	1333	1421	22.11	7.11	321.53	08305
								XX13	2562	1520	22.10			08306
Extra	44	156 E	26 July	21:15	153	12	150	GG54	1333	1765	27.47	9.09	299.29	08307
								XX13	2562	2088	30.35			08308
Extra	41	151 E	27 July	22:06	150	4	150	GG54	1333	1261	19.62	3.39	177.47	08309
								XX13	2562	1312	19.07			08310
OS08184	41	145 E	28 July	23:43	164	24	150	GG54	1333	1904	29.63	9.93	348.32	08311
								XX13	2562	1960	28.49			08312
				23:56	556	26	500	GG54	1333	6038	93.96	28.77	327.05	08313
								XX13	2562	6050	87.95			08314

1) Exclusively phytoplankton

2) Including some fragments of medusae.

3) *Neocalanus* abundant.

4) Gelatinous zooplankton abundant.

5) *Salpida* abundant.

6) Chaetognaths abundant.

9. Data on Calibration of Flowmeters

Flowmeters used for plankton nets were calibrated once in each leg (leg 1-4).

Table 15: Calibration data on flowmeters used for a twin or single NORPAC net and other kind of nets

50-m wire out at OS08099 (51-40N, 172-00W) in 20 June 2008.

Flowmeter No.	Wire length (m)	Revolution						Mean
		1	2	3	4	5	6	
RG1333	50	530	518	530	540*	492*	502	520
RG2374	50	468*	468	485	514*	478	498	482
RG2562	50	535*	515	528	528	474*	492	516
RG2856	50	649	645	685*	679	592	550*	641
RG3023	50	569	658*	578	605	548*	560	578

*: omitted from mean value calculation.

50-m wire out at OS08122 (57-28N, 165-57W) in 28 June 2008.

Flowmeter No.	Wire length (m)	Revolution						Mean
		1	2	3	4	5	6	
RG2374	50	460*	451	460	450*	459	460	458
RG2555	50	400*	386	396	388	396	385*	392
RG3006	50	430*	416	420	413	408*	422	418

*: omitted from mean value calculation.

10-m wire out at OS08144 (64-10N, 166-49W) in 2 July 2008.

Flowmeter No.	Wire length (m)	Revolution										Mean
		1	2	3	4	5	6	7	8	9	10	
RG895	10	150*	145	131	134	127	118	121	120*	125	129	129
RG1333	10	135*	120	113	120	105	105	113	105	100*	116	112
RG2562	10	140*	135	125	128	115	110*	119	118	113	119	122
RG2856	10	162*	140	140	142	134	130	125	150	125*	149	139
RG3023	10	138*	128	120	122	120	112*	122	112	115	120	120
RG3024	10	165*	125	192*	130	128	123	143	105*	128	131	130

*: omitted from mean value calculation.

10-m wire out at OS08178 (66-38N, 168-40W) in 13 July 2008.

Flowmeter No.	Wire length (m)	Revolution										Mean
		1	2	3	4	5	6	7	8	9	10	
RG895	10	118	120	113	107*	110	111	110	123	110	206*	114
RG1333	10	100*	98	98	89*	90	98	97	99	92	90	95
RG2562	10	111	111	110	102	105	110	113*	113	107	99*	109
RG2856	10	156	141	157	76*	133	150	132	162*	158	138	146
RG3024	10	156	156	138*	151	190	250*	143	160	150	120	153

*: omitted from mean value calculation.

50-m wire out at OS08184 (41-30N, 145-47E) in 28 July 2008.

Flowmeter No.	Wire length (m)	Revolution						Mean
		1	2	3	4	5	6	
RG1333	50	530*	505	511	518	490*	510	511
RG2562	50	552	542*	549	563*	544	543	547

*: omitted from mean value calculation.

10.Data on Nutrients

Seawater samples were collected with Niskin bottles on the CTD system. The samples for nutrient analysis were stored in polyethylene bottles and kept in a freezer at -20. Nutrients were analyzed in the laboratory with Technicon Auto-analyzer. The analyses of nutrients were conducted by K.Toya.

Table 16: Data on Nutrients

OS08053 (Site.H)					OS08054				
6856					1024				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.28	18.49	0.00	14.93	0	0.40	3.06	0.15	11.62
5	1.55	17.44	0.06	14.24	5	0.45	3.14	0.16	12.80
10	1.59	18.11	0.01	15.56	10	0.41	2.95	0.15	11.95
20	1.49	16.30	0.24	14.48	20	0.41	2.96	0.15	11.72
30	1.64	15.63	0.24	16.77	30	0.42	3.23	0.16	12.56
40	2.08	23.98	0.01	30.07	40	0.49	4.30	0.22	13.40
50	2.44	31.49	0.02	41.48	50	0.47	4.22	0.21	12.98
75	2.29	30.60	0.16	40.19	75	0.69	8.83	0.27	12.86
100	2.47	33.10	0.20	46.03	100	0.57	12.65	0.15	17.19
125	2.52	36.80	0.15	53.31	125	0.98	13.87	0.11	18.45
150	2.98	41.44	0.14	63.07	150	0.99	13.71	0.11	18.50
200	2.82	40.65	0.11	63.11	200	1.02	14.55	0.10	19.17
300	3.76	47.60	0.11	77.12	300	1.42	22.39	0.09	29.34

OS08057					OS08061				
6250					1501				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.37	2.30	0.10	8.23	0	0.86	10.81	0.22	17.94
5	0.34	1.96	0.10	8.45	5	0.94	11.78	0.23	20.61
10	0.35	2.13	0.10	8.63	10	1.05	12.77	0.22	13.44
20	0.37	2.58	0.11	9.26	20	0.91	11.52	0.21	20.26
30	0.41	3.28	0.14	10.07	30	0.94	12.28	0.22	21.57
50	0.45	4.07	0.17	10.59	40	1.05	12.63	0.23	20.97
75	0.58	6.56	0.35	10.82	50	1.04	12.59	0.27	20.30
100	0.61	6.84	0.32	11.28	75	1.23	15.66	0.28	14.59
150	0.70	9.00	0.06	12.84	100	1.19	16.09	0.10	23.27
200	0.77	9.87	0.05	13.82	125	1.21	15.78	0.09	21.99
300	1.10	14.83	0.04	21.49	150	1.28	16.77	0.09	23.13
400	1.30	18.14	0.04	27.84	200	1.22	16.87	0.08	14.10
500	1.85	26.16	0.04	45.38	300	1.76	25.76	0.08	35.73
750	2.79	39.07	0.03	90.47					
1000	2.97	42.94	0.03	118.78					
1250	3.04	43.98	0.03	131.64					
1500	3.07	44.39	0.03	147.67					
1750	3.06	44.04	0.03	153.51					
2000	3.03	43.80	0.03	154.61					
2500	2.82	41.43	0.03	154.95					
3000	2.66	39.48	0.03	152.61					
3500	2.50	38.50	0.03	146.49					
4000	2.58	38.07	0.04	145.94					
4500	2.52	37.58	0.03	147.66					
5000	2.50	37.60	0.03	145.94					

OS08067					OS08064				
4300					2770				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.45	15.35	0.18	22.66	0	0.59	7.40	0.19	8.73
5	1.51	15.94	0.18	22.12	5	0.47	5.29	0.18	11.78
10	1.46	15.65	0.17	22.41	10	0.51	5.84	0.19	13.16
20	1.50	16.98	0.21	22.35	20	0.63	7.50	0.19	15.20
30	1.49	16.85	0.18	23.16	30	0.68	8.24	0.20	16.22
50	1.58	18.70	0.24	25.01	40	0.65	8.22	0.26	15.08
75	1.76	21.26	0.38	29.80	50	0.68	8.61	0.22	16.10
100	1.81	22.16	0.39	32.56	75	0.77	9.80	0.18	15.98
150	2.17	30.16	0.04	48.21	100	0.78	11.22	0.11	16.34
200	2.85	41.67	0.04	76.45	125	0.84	12.31	0.11	17.55
300	3.13	46.51	0.04	90.19	150	0.89	13.18	0.09	19.11
400	3.16	47.29	0.04	100.88	200	1.06	15.21	0.09	21.18
500	3.10	46.25	0.03	109.68	300	1.61	25.16	0.08	40.17
750	3.20	48.30	0.03	130.06					
1000	3.17	48.37	0.03	140.24					
1250	3.11	48.29	0.03	144.57					
1500	3.04	46.94	0.03	151.38					
1750	3.00	47.63	0.03	156.54					
2000	2.96	45.91	0.03	155.37					
2250	2.89	45.14	0.03	155.37					
2500	2.70	43.41	0.04	146.97					
2750	2.73	42.75	0.04	151.24					
3000	2.72	42.29	0.03	146.49					
3500	2.65	41.34	0.04	141.95					
4000	2.48	40.57	0.03	144.50					

OS08071a				
5346				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.66	16.16	0.23	25.86
5	1.61	16.15	0.22	25.60
10	1.58	15.94	0.21	25.38
20	1.60	15.89	0.21	24.98
30	1.72	16.13	0.21	24.82
40	1.67	17.18	0.24	25.71
50	1.85	18.48	0.26	27.22
75	2.06	22.32	0.17	34.06
100	2.20	24.61	0.08	38.98
125	2.46	28.50	0.07	48.16
150	3.14	34.72	0.09	62.73
200	3.45	40.35	0.07	76.55
300	3.77	44.13	0.07	86.50

OS08080					OS08087 (TrapB)				
Depth (m)	2891				Depth (m)	3780			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.73	22.81	0.22	26.53	0	1.91	27.30	0.29	43.33
5	1.70	22.55	0.21	26.22	5	1.98	27.45	0.28	45.20
10	1.77	23.37	0.22	27.37	10	1.83	25.00	0.26	42.19
20	1.79	23.27	0.24	27.43	20	2.03	28.27	0.02	45.48
30	2.03	27.44	0.30	34.88	30	1.98	27.75	0.27	44.96
40	1.91	18.50	0.26	34.93	50	2.07	29.30	0.36	49.70
50	2.23	31.65	0.45	47.68	75	2.14	31.26	0.54	51.80
75	2.26	32.39	0.07	52.24	100	2.24	33.10	0.21	53.62
100	2.33	34.60	0.06	55.32	150	2.11	31.36	0.04	53.94
125	2.34	35.02	0.06	58.34	200	2.63	40.25	0.04	69.15
150	2.56	37.89	0.05	61.04	300	2.89	46.64	0.03	86.17
200	2.88	45.02	0.05	77.69	400	3.09	47.20	0.03	100.06
300	3.03	45.03	0.10	88.32	500	2.91	47.74	0.03	106.03
400	3.14	46.80	0.09	101.76	750	3.10	48.69	0.03	128.96
500	3.19	47.43	0.10	101.32	1000	3.22	47.41	0.09	136.27
600	3.17	47.44	0.10	118.95	1250	3.23	47.56	0.03	148.56
750	3.20	47.46	0.09	119.81	1500	3.11	46.99	0.02	159.44
1000	3.22	47.55	0.10	132.74	1750	3.16	45.76	0.03	172.51
1250	3.21	47.13	0.09	153.77	2000	3.10	44.77	0.02	175.05
1500	3.18	46.55	0.09	150.58	2250	3.11	44.57	0.02	182.49
1750	3.10	47.94	0.05	167.27	2500	2.98	43.03	0.02	188.88
2000	3.12	46.48	0.05	173.54	2750	3.03	42.44	0.02	189.09
2250	3.07	46.30	0.05	177.32	3000	3.00	41.82	0.02	182.96
2500	3.13	45.93	0.05	188.48	3250	2.91	41.42	0.02	203.21
2750	2.94	43.50	0.05	190.05	3500	2.93	41.15	0.02	194.10

OS08094 (TrapA)					OS08102				
Depth (m)	5335				Depth (m)	135			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.94	15.27	0.23	26.08	0	1.29	6.33	0.18	27.42
5	1.79	15.19	0.23	25.94	10	1.26	7.16	0.20	32.04
10	1.78	15.22	0.23	26.10	20	1.20	7.02	0.20	32.93
20	1.80	15.24	0.23	25.82	30	1.63	12.22	0.22	36.29
30	1.87	15.97	0.22	27.28	50	2.16	19.22	0.28	40.21
40	1.98	18.06	0.28	28.74	70	2.43	23.88	0.33	45.59
50	1.99	18.56	0.33	29.01	100	2.80	29.37	0.24	54.93
75	2.03	19.88	0.51	30.69	125	2.88	30.39	0.26	59.40
100	2.07	20.68	0.30	31.93					
125	2.33	26.26	0.08	42.35					
150	3.22	35.67	0.07	61.94					
200	3.73	40.76	0.07	78.70					
300	4.11	44.25	0.07	89.26					

OS08104					OS08103				
Depth (m)	113				Depth (m)	120			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.61	0.04	0.06	14.26	0	0.75	3.09	0.13	11.89
10	0.53	0.06	0.06	11.05	10	0.94	4.23	0.14	13.91
20	0.76	1.87	0.12	9.82	20	1.49	9.82	0.21	20.63
30	1.14	4.77	0.15	13.29	30	1.66	11.71	0.23	23.31
50	3.58	18.82	0.40	31.95	50	1.86	14.90	0.24	29.69
70	2.63	24.60	0.20	44.53	70	2.25	17.62	0.30	34.39
100	2.87	27.36	0.19	51.79	100	2.95	26.00	0.25	49.85
					110	2.93	26.06	0.25	50.31

OS08106					OS08105				
Depth (m)	137				Depth (m)	133			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.42	0.06	0.07	6.75	0	0.54	0.06	0.07	10.39
10	0.39	0.06	0.07	6.91	10	0.55	0.06	0.07	12.00
20	0.66	1.54	0.11	9.32	20	0.72	1.10	0.09	12.67
30	1.45	4.51	0.18	12.73	30	0.81	1.79	0.11	9.65
50	2.57	23.22	0.25	38.73	50	1.90	13.33	0.30	24.27
70	2.97	29.37	0.18	56.59	70	2.25	17.29	0.36	32.77
100	2.86	29.27	0.13	57.25	100	2.95	28.17	0.11	55.43
130	2.90	29.36	0.14	56.45	120	3.03	28.21	0.11	55.53

OS08112					OS08111				
70					85				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.34	0.14	0.08	0.60	0	0.46	0.11	0.07	3.33
10	0.43	0.13	0.08	0.53	10	0.44	0.07	0.08	2.60
20	1.15	4.37	0.13	8.04	20	0.46	0.07	0.08	0.64
30	1.44	6.14	0.16	11.11	30	0.56	0.32	0.08	0.64
40	1.42	6.20	0.15	11.50	50	2.65	20.66	0.22	34.20
50	1.48	6.33	0.17	11.44	70	2.66	22.27	0.21	35.73
60	1.53	6.25	0.15	11.61	75	2.68	22.09	0.21	35.34

OS08114					OS08113				
77					72				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.35	0.07	0.09	0.63	0	0.40	0.11	0.09	1.08
10	0.39	0.07	0.08	0.58	10	0.45	0.43	0.09	1.31
20	0.43	0.11	0.09	0.64	20	0.38	0.14	0.09	1.14
30	0.65	0.89	0.1	1.48	30	2.01	6.08	0.14	9.55
50	2.15	15.51	0.15	24.51	40	1.30	6.29	0.14	10.16
60	2.11	15.52	0.16	24.2	50	2.06	6.44	0.15	10.32
67	1.97	15.37	0.15	24.2	60	1.33	6.66	0.15	10.71

OS08116					OS08115a				
2670					1255				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.31	2.65	0.13	21.60	0	0.97	4.98	0.17	22.91
10	1.24	2.66	0.12	21.57	10	1.52	5.09	0.17	23.25
20	0.79	3.05	0.13	22.52	20	1.24	7.96	0.20	28.46
30	2.55	10.28	0.21	31.38	30	3.53	20.30	0.33	41.85
50	2.60	23.37	0.28	47.28	50	3.84	23.67	0.31	48.33
70	2.72	25.42	0.38	47.15	70	2.62	26.35	0.32	53.14
100	2.74	29.69	0.29	52.22	100	2.84	27.92	0.32	54.55
125	3.20	31.72	0.20	57.07	125	2.85	28.68	0.27	57.13
150	3.28	32.05	0.12	57.55	150	3.00	29.74	0.23	58.23
200	3.26	33.59	0.11	61.43	200	4.72	30.81	0.15	59.58

OS08118					OS08117				
77					102				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.33	0.16	0.07	3.22	0	0.32	0.15	0.08	5.12
10	0.40	0.09	0.09	3.35	10	0.37	0.11	0.07	5.40
20	0.25	3.84	0.10	5.62	20	0.63	1.23	0.10	6.01
30	1.07	8.44	0.13	9.61	30	0.94	3.56	0.15	8.76
50	1.28	13.41	0.13	17.83	50	2.54	23.07	0.19	39.91
60	2.04	13.98	0.13	18.77	70	3.03	26.97	0.18	45.92
67	2.73	13.46	0.13	17.93	80	2.91	28.23	0.18	47.15
					90	2.87	26.91	0.18	46.53

OS08120					OS08119				
68					68				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.34	0.55	0.09	1.42	0	0.06	0.14	0.08	0.51
10	1.07	6.04	0.12	6.40	10	0.43	0.31	0.08	1.03
20	0.67	3.11	0.11	3.55	20	1.34	4.33	0.11	6.80
30	1.42	5.61	0.12	5.79	30	1.47	5.47	0.12	8.70
50	1.04	5.98	0.12	6.34	50	0.95	6.87	0.12	7.35
60	1.00	6.84	0.12	7.13	60	1.07	7.17	0.11	7.02

OS08122					OS08121				
65					68				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.33	0.39	0.09	1.86	0	0.94	1.26	0.11	3.32
10	0.98	0.82	0.10	2.26	10	1.16	2.90	0.12	5.18
20	1.04	1.29	0.11	2.43	20	0.61	1.78	0.12	4.32
30	1.61	3.06	0.14	3.83	30	1.89	5.96	0.15	10.02
40	1.59	2.99	0.14	3.89	40	2.13	7.20	0.17	12.06
50	1.63	3.24	0.15	4.00	50	1.84	6.07	0.16	10.15
60	1.52	3.01	0.14	3.72	55	0.99	5.94	0.16	10.03

OS08124					OS08123				
Depth (m)	26				Depth (m)	55			
Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)	Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)
0	0.92	0.06	0.08	1.20	0	0.88	0.11	0.07	0.86
5	0.90	0.10	0.08	1.26	10	0.89	0.09	0.08	0.92
10	0.91	0.08	0.08	1.37	20	0.98	0.11	0.08	1.14
15	1.24	0.08	0.08	1.26	30	1.14	0.21	0.08	1.20
20	0.91	0.07	0.08	1.37	40	0.97	0.08	0.08	1.20
23	0.92	0.10	0.08	1.37	45	1.20	0.12	0.08	1.20

OS08126					OS08125				
Depth (m)	63				Depth (m)	27			
Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)	Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)
0	0.50	0.13	0.10	4.38	0	0.53	0.12	0.08	1.00
10	0.59	0.10	0.09	4.80	5	0.55	0.10	0.08	1.06
20	0.70	0.17	0.09	5.03	10	0.55	0.10	0.08	1.12
30	1.26	5.87	0.13	16.33	15	0.54	0.14	0.08	0.94
50	1.66	10.55	0.18	33.98	20	0.53	0.10	0.08	1.00
55	1.71	10.42	0.19	36.11	25	0.53	0.09	0.08	0.89

OS08129					OS08127				
Depth (m)	69				Depth (m)	64			
Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)	Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)
0	0.49	0.06	0.08	10.68	0	0.59	0.08	0.08	3.46
10	0.52	0.05	0.08	11.04	10	0.60	0.09	0.08	3.85
20	0.69	0.46	0.10	15.77	20	1.00	2.77	0.10	9.27
30	1.51	2.64	0.12	23.02	30	1.72	11.55	0.15	25.48
40	1.60	8.15	0.14	18.79	40	1.77	12.11	0.15	27.17
50	2.07	17.31	0.13	42.59	50	1.75	12.01	0.15	27.17
60	2.03	16.72	0.13	41.66	55	1.75	11.93	0.15	28.03

OS08131					OS08130				
Depth (m)	67				Depth (m)	55			
Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)	Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)
0	0.58	0.06	0.07	9.65	0	0.52	0.08	0.07	6.50
10	0.61	0.07	0.07	9.84	10	0.53	0.07	0.07	5.79
20	0.91	1.28	0.09	15.77	20	0.67	0.07	0.07	6.70
30	1.55	7.43	0.13	22.22	30	0.69	0.20	0.07	4.31
40	2.03	16.01	0.13	28.26	40	1.70	8.92	0.20	25.77
50	2.09	16.96	0.15	46.06	50	1.79	9.03	0.19	33.34
57	2.11	16.89	0.16	46.22					

OS08133					OS08132				
Depth (m)	60				Depth (m)	59			
Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)	Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)
0	0.69	0.03	0.07	11.42	0	0.73	0.07	0.07	6.96
10	0.69	0.04	0.07	11.38	10	0.74	0.08	0.07	7.56
20	0.90	0.50	0.07	13.61	20	0.78	0.94	0.09	12.24
30	1.55	7.95	0.14	14.80	30	1.43	9.26	0.18	22.45
40	1.99	14.16	0.17	33.80	40	1.83	12.96	0.21	39.16
50	2.03	14.52	0.19	44.29	50	1.93	12.79	0.22	41.32
55	2.06	14.48	0.19	43.77	55	1.96	12.58	0.22	41.88

OS08135					OS08134				
Depth (m)	48				Depth (m)	58			
Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)	Depth (m)	PO ₄ (μM)	NO ₃ (μM)	NO ₂ (μM)	SiO ₄ (μM)
0	0.52	0.04	0.08	5.53	0	0.65	0.04	0.07	12.89
10	0.54	0.03	0.08	5.56	10	0.71	0.04	0.08	12.41
20	0.81	0.11	0.08	8.70	20	1.03	1.48	0.10	15.54
30	1.27	4.07	0.14	14.41	30	1.33	4.36	0.12	19.02
40	1.55	7.01	0.17	19.42	40	1.98	16.35	0.17	44.36
43	1.60	6.74	0.17	18.79	50	1.97	16.43	0.17	44.56
					53	1.96	16.33	0.17	45.88

OS08137				
Depth (m)	24			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.57	0.08	0.08	8.02
5	0.62	0.26	0.10	3.96
10	0.69	0.04	0.08	4.14
15	0.69	0.73	0.10	3.34
20	0.68	0.34	0.10	3.63

OS08136				
Depth (m)	43			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.65	0.02	0.08	5.67
5	0.64	0.37	0.08	5.68
10	0.63	< 0.01	0.08	5.34
20	0.86	< 0.01	0.08	6.25
30	1.12	1.31	0.11	11.84
35	1.14	1.55	0.11	12.92

OS08140				
Depth (m)	25			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.55	0.03	0.09	7.38
5	0.57	0.01	0.08	4.93
10	0.66	0.05	0.09	2.54
15	0.68	0.08	0.09	1.97
20	0.67	0.05	0.09	2.09

OS08139				
Depth (m)	32			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.81	0.57	0.10	9.16
5	0.87	0.60	0.11	9.50
10	1.01	1.37	0.13	10.92
15	1.07	1.76	0.13	12.24
20	1.08	1.93	0.14	12.29
25	1.08	1.64	0.14	12.18

OS08142				
Depth (m)	20			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.62	0.18	0.10	10.64
5	0.81	0.34	0.11	8.58
10	0.74	0.27	0.11	7.16
17	0.83	0.33	0.11	7.39

OS08141				
Depth (m)	21			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.39	0.01	0.08	11.90
5	0.44	0.08	0.09	10.41
10	0.65	0.20	0.10	3.79
15	0.75	0.22	0.10	3.68
18	0.75	0.27	0.11	3.80

OS08143				
Depth (m)	25			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.48	0.01	0.08	13.04
5	0.58	0.11	0.09	11.44
10	0.84	0.26	0.10	8.64
15	0.94	0.40	0.11	8.19
20	0.93	0.42	0.11	8.19

OS08144				
Depth (m)	28			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.48	0.02	0.09	7.44
5	0.55	0.04	0.08	5.50
10	0.68	0.04	0.08	3.51
15	0.74	0.04	0.09	2.31
20	0.75	0.05	0.09	2.43
25	0.74	0.05	0.08	2.60

OS08150				
Depth (m)	52			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.44	0.67	0.10	5.00
5	0.59	1.67	0.11	4.08
10	0.62	1.96	0.12	3.74
20	0.77	3.07	0.15	2.08
30	0.82	2.72	0.13	2.20
40	0.85	2.66	0.13	2.48

OS08151				
Depth (m)	41			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.49	0.03	0.08	7.73
5	0.47	0.04	0.08	6.59
10	0.66	0.09	0.08	3.28
20	0.78	0.20	0.10	5.79
30	0.77	0.25	0.10	5.87
35	0.73	0.20	0.09	5.85

OS08152				
Depth (m)	43			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.52	0.08	0.08	3.45
5	0.50	0.04	0.08	3.57
10	0.51	0.03	0.08	3.62
20	0.60	0.08	0.09	3.34
30	0.62	0.12	0.09	3.45
40	0.78	0.50	0.10	3.68

OS08153				
Depth (m)	47			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.39	0.08	0.08	1.11
5	0.39	0.14	0.09	1.12
10	0.51	0.47	0.10	1.17
20	0.93	5.36	0.16	2.54
30	1.17	7.30	0.19	3.34
40	1.19	7.28	0.21	3.40
44	1.05	6.60	0.19	3.00

OS08154				
Depth (m)	40			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.73	1.82	0.10	22.66
5	0.87	3.39	0.13	27.61
10	1.13	6.40	0.18	34.84
15	1.30	9.61	0.23	40.16
20	1.56	13.25	0.25	41.52
30	1.94	16.04	0.21	48.97
35	1.92	15.94	0.21	48.59

OS08155				
Depth (m)	46			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	1.11	5.90	0.15	29.84
5	1.13	6.38	0.17	32.17
10	1.29	7.86	0.20	35.76
20	1.17	5.11	0.14	27.93
30	1.34	7.73	0.19	29.29
40	1.36	8.03	0.19	29.78
43	1.32	8.13	0.19	29.02

OS08156					OS08157				
Depth (m)	44				Depth (m)	43			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.45	0.19	0.07	9.62	0	0.58	1.22	0.09	15.98
5	0.43	0.22	0.07	9.72	5	0.57	0.86	0.09	14.56
10	0.61	0.78	0.09	11.41	10	0.82	1.07	0.09	12.61
15	0.77	1.33	0.10	10.00	15	1.07	3.38	0.14	18.31
20	0.90	2.17	0.12	12.44	20	1.14	4.18	0.15	20.70
30	1.04	3.26	0.13	16.95	30	1.16	4.24	0.15	21.36
40	1.06	3.93	0.14	19.02	38	1.19	4.26	0.15	21.30
OS08158					OS08159				
Depth (m)	46				Depth (m)	40			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.45	0.28	0.08	13.31	0	0.47	0.30	0.08	13.64
5	0.47	0.40	0.08	14.13	5	0.51	0.53	0.09	14.40
10	0.64	0.66	0.09	16.57	10	0.68	0.78	0.09	16.14
15	0.75	0.68	0.09	16.90	20	0.93	1.88	0.11	15.11
20	0.94	2.46	0.11	18.64	30	1.62	10.98	0.24	33.75
30	1.27	6.57	0.17	25.65	35	1.63	10.89	0.24	33.48
40	1.29	6.27	0.19	24.45					
OS08160					OS08161				
Depth (m)	41				Depth (m)	41			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.52	0.16	0.08	16.52	0	0.54	0.16	0.08	17.06
5	0.59	0.50	0.08	17.33	5	0.57	0.21	0.08	17.06
10	0.56	0.22	0.08	17.82	10	0.60	0.36	0.08	17.17
15	0.57	0.37	0.09	16.14	15	1.05	4.85	0.15	24.24
20	1.34	8.30	0.20	30.54	20	1.70	14.20	0.24	32.50
30	1.73	13.75	0.29	42.17	30	1.75	15.02	0.25	37.99
35	1.78	13.83	0.29	42.17	35	1.82	15.16	0.25	38.21
OS08162					OS08163				
Depth (m)	45				Depth (m)	41			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.69	1.95	0.11	17.50	0	0.66	1.50	0.10	13.37
5	0.69	1.87	0.11	16.84	5	0.86	2.11	0.11	17.93
10	0.95	3.87	0.14	21.57	10	1.00	3.15	0.13	19.51
15	1.08	5.05	0.15	24.73	15	1.03	3.64	0.14	19.18
20	1.13	5.43	0.16	23.86	20	1.28	6.36	0.18	24.29
30	1.19	5.61	0.17	23.20	30	1.31	6.88	0.19	25.22
40	1.22	5.79	0.18	22.39	35	1.31	6.71	0.18	25.16
OS08164					OS08165				
Depth (m)	43				Depth (m)	32			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.53	0.13	0.08	11.68	0	0.56	0.12	0.09	5.70
5	0.53	0.14	0.08	12.71	5	0.61	0.12	0.09	7.01
10	0.64	0.38	0.09	16.08	10	0.67	0.18	0.09	8.26
15	0.73	0.49	0.09	16.14	15	0.68	0.23	0.09	7.93
20	0.90	1.44	0.11	16.30	20	0.84	0.53	0.10	12.93
30	1.25	4.62	0.17	21.79	25	0.88	0.63	0.10	12.44
38	1.25	4.31	0.16	22.23					
OS08166					OS08167				
Depth (m)	25				Depth (m)	39			
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.58	0.09	0.08	7.93	0	0.53	0.23	0.09	8.69
5	0.63	0.12	0.09	10.97	5	0.58	0.52	0.10	10.70
10	0.63	0.17	0.09	10.92	10	0.65	0.37	0.10	13.69
15	0.65	0.27	0.11	10.65	15	0.73	0.58	0.10	16.14
20	0.69	0.41	0.10	10.87	20	1.03	4.02	0.16	19.13
					30	0.98	4.39	0.17	15.32

OS08168					OS08169				
Depth (m) 43					Depth (m) 45				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.32	0.17	0.09	3.53	0	0.60	1.64	0.11	16.08
5	0.32	0.22	0.09	3.91	5	0.68	2.18	0.12	17.39
10	0.39	0.23	0.10	6.41	10	0.56	0.77	0.10	10.70
15	0.46	0.15	0.09	9.07	15	0.74	1.42	0.12	15.98
20	0.88	1.88	0.13	15.32	20	0.93	2.78	0.14	23.10
30	0.97	2.23	0.14	15.92	30	1.13	4.63	0.16	21.79
40	0.98	2.22	0.14	15.87	40	1.14	4.75	0.16	22.33

OS08170					OS08171				
Depth (m) 45					Depth (m) 43				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.58	0.11	0.09	10.87	0	0.56	0.07	0.08	8.15
5	0.65	0.40	0.10	10.16	5	0.56	0.09	0.09	8.15
10	0.69	0.40	0.10	10.21	10	0.67	0.14	0.09	11.57
15	0.72	0.67	0.11	9.51	15	0.53	0.19	0.07	6.14
20	0.69	0.74	0.11	8.96	20	0.66	0.19	0.10	10.92
30	0.76	1.19	0.12	8.91	30	0.67	0.25	0.10	10.49
40	0.74	1.06	0.11	8.42	38	0.66	0.25	0.10	10.21

OS08172					OS08173				
Depth (m) 48					Depth (m) 50				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.56	0.13	0.09	5.05	0	0.55	0.17	0.10	1.95
5	0.53	0.08	0.08	4.72	5	0.57	0.12	0.09	2.00
10	0.61	0.22	0.09	6.03	10	0.60	0.15	0.08	2.33
20	0.68	0.35	0.10	6.52	20	0.78	0.28	0.08	4.29
30	0.66	0.30	0.09	5.43	30	0.82	0.34	0.09	4.51
40	0.65	0.28	0.10	5.05	40	0.84	0.34	0.10	4.67
43	0.66	0.30	0.11	5.10	45	0.84	0.31	0.11	4.56

OS08174					OS08175				
Depth (m) 51					Depth (m) 44				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)	Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.60	0.17	0.10	1.08	0	0.52	0.11	0.14	2.60
5	0.63	0.30	0.09	1.46	5	0.54	0.19	0.09	3.80
10	0.58	0.18	0.10	1.25	10	0.57	0.25	0.10	4.62
20	0.76	0.74	0.09	1.63	15	0.58	0.28	0.10	5.05
30	0.88	0.99	0.12	1.90	20	0.59	0.30	0.10	5.16
40	0.91	1.08	0.12	1.95	30	0.69	0.30	0.10	5.32
45	0.91	1.33	0.13	1.90	40	0.60	0.30	0.10	5.38

OS08177				
Depth (m) 32				
Depth (m)	PO ₄ (μ M)	NO ₃ (μ M)	NO ₂ (μ M)	SiO ₄ (μ M)
0	0.52	0.09	0.09	6.68
5	0.48	0.18	0.10	5.70
10	0.51	0.12	0.09	5.49
15	0.59	0.12	0.09	6.25
20	0.64	0.48	0.10	6.52
25	0.65	0.15	0.10	6.30
27	0.64	0.14	0.09	6.30