9

THE "OSHORO MARU" CRUISE 006
TO IBURI OFF and SANRIKU OFF

IN OCTOBER-NOVEMBER 2014

1. Cruise Itinerary

Cruise 006

Departure from Hakodate	October 28	2014
Start hydrographic research (OS14132) and gill net research (OSG1402)	30	
Finish gill net research (OSG1405)	31	
Finish hydrographic research (OS14149)	November 2	
Arrival at Shiogama	4	
Departure from Shiogama and start hydrographic research (OS14150)	7	
Start Bottom-trawl (OST1407)	9	
Finish Bottom-trawl (OST1409)	11	
Finish hydrographic research (OS14157) and return to Hakodate	12	

Total coverage 1122.5 miles

2. Vessel Personnel

Crew: Captain: Associate Professor Shogo Takagi

And 30 persons

(Hakodate-Shiogama)

Research Staff: Assistant Professor (Laboratory of Marine Environmental Science, Hokkaido University)

Hiroji Onishi

(Kasetsart University) Khwan Kong and 6 students

(Shiogama-Hakodate)

Research Staff: Professor (Laboratory of Marine Environment and Resource Sensing, Hokkaido University)

Yasuzumi Fujimori

Associate Professor (Laboratory of Marine Environment and Resource Sensing, Hokkaido University)

Toru Mukai

Assistant Professor (Field Science Center for Northern Biosphere, Hokkaido University)

Jun Yamamoto

Technical assistant 10 persons

(Hakodate-Hakodate)

Teaching Assistant: 4 persons

Undergraduate Students: 42 persons

Total 67 persons

3. Items of Research

Hydrographic observations: (Observation of Temperature, Salinity, and Computed Dynamic Depth Anomaly)

Hydrographic work on deck and the data processing were made by the Science officer, the deck officers, crews, research staff and cadets of the “Oshoro maru”. Temperature and salinity were measured by CTD (Seabird SBE-9Plus) and XCTD.

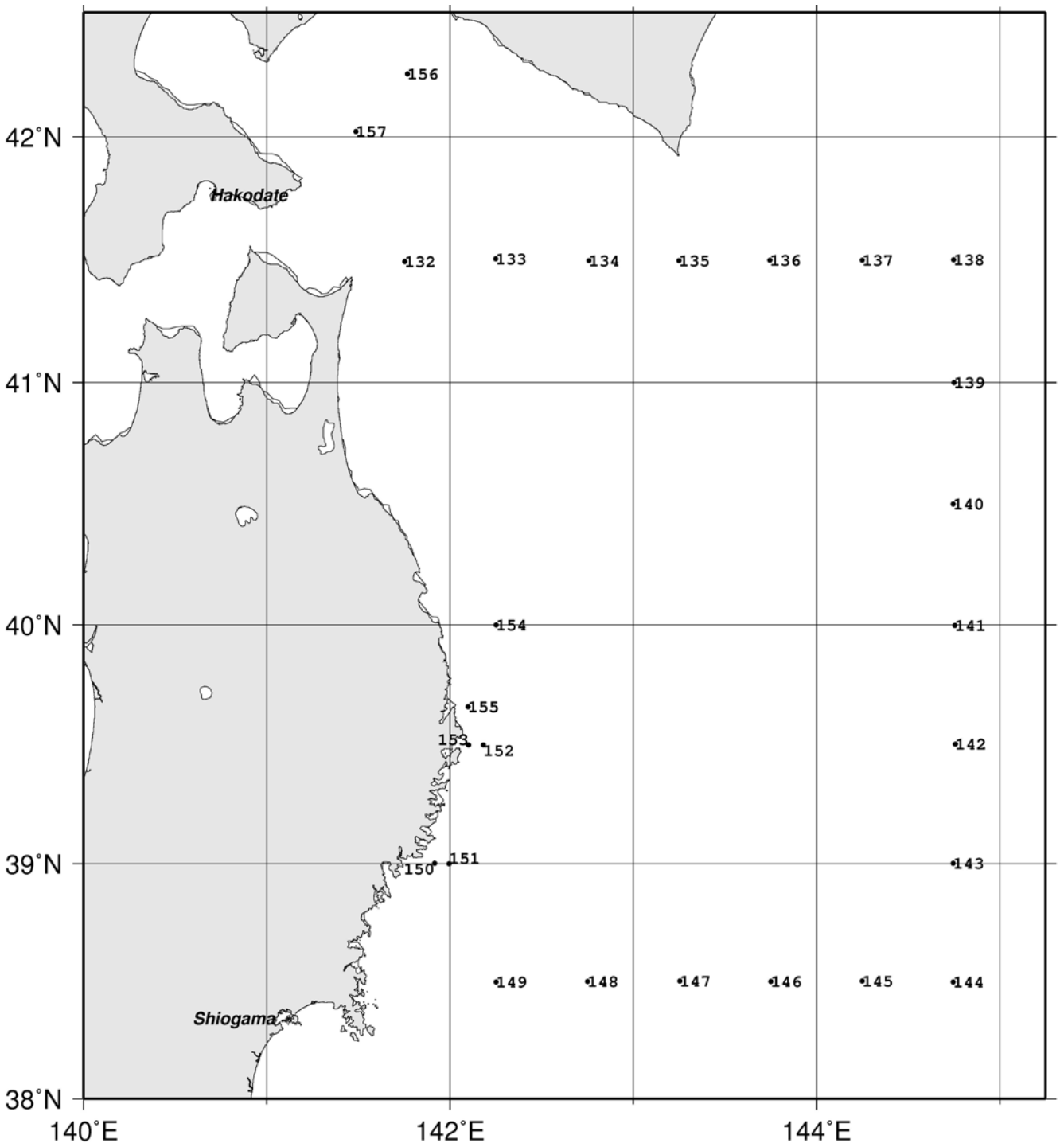

Fig.-1 Oceanographic stations

Table 1. List of Oceanographic station

Station	Lat.	Long.	Date (GMT)	Hour (GMT)	T.Z.	Depth	Col.	Tr.	SST	Wr.	Gear
OS14132	41 29.67 N	141 45.23 E	10/29	15:21	9	872	-	-	15.1	bc	9p-1171
OS14133	41 30.37 N	142 14.93 E	10/29	19:00	9	1196	-	-	16.9	bc	9p-1171
OS14134	41 29.94 N	142 45.51 E	10/29	23:04	9	1160	3	19.4	17.3	b	9p-1171
OS14135	41 29.91 N	143 15.05 E	10/30	7:30	9	1328	3	12.8	15.4	b	9p-1171
OS14136	41 29.98 N	143 44 79 E	10/30	11:32	9	1530	-	-	10.6	b	9p-1171
OS14137	41 30.04 N	144 14.95 E	10/31	1:05	9	2881	4	16.2	11.1	bc	9p-1171
OS14138	41 30.15 N	144 44.92 E	10/31	7:10	9	4565	4	11.1	10.9	b	9p-1171
OS14139	41 00.00 N	144 45.07 E	10/31	12:24	9	6578	-	-	14.1	r	9p-1171
OS14140	40 30.12 N	144 44.76 E	10/31	17:31	9	6575	-	-	13.0	bc	9p-1171
OS14141	39 59.92 N	144 45.39 E	10/31	23:10	9	5979	4	16.5	19.9	bc	9p-1171
OS14142	39 30.09 N	144 45.51 E	11/1	4:31	9	5849	4	9.4	18.4	c	9p-1171
OSI14143	39 00.04 N	144 44.75 E	11/1	9:46	9	5851	-	-	18.6	r	9p-1171
OS14144	38 29.91 N	144 44.82 E	11/1	15:02	9	5583	-	-	16.1	r	9p-1171
OS14145	38 30.16 N	144 15.00 E	11/1	19:23	9	6700	-	-	17.8	r	9p-1171
OS14146	38 30.06 N	143 45.01 E	11/1	23:57	9	5390	4	12.5	17.9	c	9p-1171
OS14147	38 30.15 N	143 15.28 E	11/2	5:06	9	2341	3	13.5	19.8	c	9p-1171
OS14148	38 30.03 N	142 45.01 E	11/2	9:38	9	1484	-	-	13.3	c	9p-1171
OS14149	38 29.87 N	142 15.06 E	11/2	13:54	9	707	-	-	15.9	c	9p-1171
OS14150	39 00.12 N	141 54.99 E	11/7	14:48	9	137	-	-	15.8	bc	19p-4636
OS14151	38 59.98 N	141 59.76 E	11/7	15:38	9	196	-	-	15.9	bc	19p-4636
OS14152	39 29.89 N	142 10.98 E	11/7	19:42	9	234	-	-	15.5	bc	19p-4636
OS14153	39 29.96 N	142 06.03 E	11/7	20:35	9	146	-	-	16.4	bc	19p-4636
OS14154	39 59.99 N	142 15.10 E	11/8	0:32	9	239	-	-	14.0	bc	19p-4636
OS14155	39.59.99 N	142 05.91 E	11/8	1:52	9	126	-	-	16.0	bc	19p-4636
OS14156	42 15.25 N	141 46.05 E	11/9	6:40	9	697	-	-	13.7	bc	19p-4636
OS14157	42 01.34 N	141 29.16 E	11/11	21:54	9	458	-	-	14.3	c	25p-1053

T.Z.: Time Difference between G.M.T and S.M.T.

Col.: Water color in Forel-Ule scale

Tr.: Transparency in meters with Secchi disc

SST: Surface temperature

Wr.: Weather in WMO Code 4501

Table 2. Oceanographic data

Station OS14132
Latitude 41-29.65N
Longitude 141-45.24E
Depth(m) 872

Press.	Temp.	Sal.	SIG-T
5	15.083	34.028	25.204
10	15.090	34.027	25.202
20	15.095	34.027	25.201
30	15.094	34.028	25.202
40	15.074	34.029	25.207
50	15.059	34.030	25.211
75	14.916	34.032	25.244
100	14.230	34.047	25.402
125	13.068	34.113	25.692
150	11.730	34.063	25.912
175	4.956	33.200	26.254
200	2.981	33.143	26.405
250	2.080	33.275	26.584
300	2.784	33.520	26.722
400	2.946	33.734	26.879
500	3.393	33.930	26.995
600	3.479	34.093	27.116
700	3.386	34.174	27.190
800	3.246	34.261	27.272

Station OS14133
Latitude 41-30.39N
Longitude 142-14.95E
Depth(m) 1196

Press.	Temp.	Sal.	SIG-T
5	17.480	33.953	24.597
10	17.484	33.953	24.596
20	17.487	33.953	24.595
30	17.487	33.953	24.595
40	17.487	33.953	24.594
50	17.491	33.953	24.594
75	16.372	33.946	24.852
100	14.121	34.146	25.502
125	12.324	34.149	25.866
150	10.409	34.028	26.123
175	9.852	33.998	26.194
200	7.840	33.748	26.314
250	5.108	33.515	26.486
300	2.743	33.362	26.600
400	2.613	33.544	26.756
500	2.922	33.744	26.890
600	3.348	33.941	27.008
700	3.600	34.107	27.116
800	3.559	34.203	27.197
900	3.253	34.262	27.273
1000	3.028	34.336	27.352

Station OS14134
Latitude 41-29.92N
Longitude 142-45.54E
Depth(m) 1160

Press.	Temp.	Sal.	SIG-T
10	17.374	33.962	24.629
20	17.368	33.963	24.631
30	17.373	33.962	24.629
40	17.373	33.963	24.629
50	17.374	33.963	24.629
75	17.318	33.958	24.639
100	15.373	34.028	25.141
125	13.478	34.081	25.584
150	12.110	34.102	25.871
175	11.212	34.084	26.024
200	10.008	33.974	26.149
250	6.244	33.531	26.361
300	3.568	33.350	26.516
400	2.747	33.503	26.712
500	2.993	33.695	26.844
600	3.328	33.919	26.992
700	3.425	34.106	27.132
800	3.354	34.204	27.217
900	3.119	34.307	27.321
1000	2.873	34.377	27.399

Station OS14135
Latitude 41-29.87N
Longitude 143-15.04E
Depth(m) 1328

Press.	Temp.	Sal.	SIG-T
5	15.556	33.917	25.014
10	15.562	33.917	25.013
20	15.557	33.917	25.014
30	15.564	33.917	25.013
40	15.526	33.914	25.019
50	15.118	33.940	25.129
75	13.916	34.079	25.493
100	12.668	34.124	25.780
125	10.544	34.014	26.088
150	9.045	33.895	26.246
175	7.671	33.778	26.362
200	4.510	33.457	26.506
250	3.182	33.414	26.603
300	2.948	33.513	26.703
400	3.046	33.727	26.865
500	3.304	33.909	26.986
600	3.410	34.040	27.081
700	3.390	34.161	27.179
800	3.306	34.236	27.247
900	3.155	34.295	27.308
1000	2.961	34.340	27.361
1200	2.623	34.430	27.464

Station OS14136
Latitude 41-29.92N
Longitude 143-44.8E
Depth(m) 1530

Press.	Temp.	Sal.	SIG-T
5	10.640	33.208	25.444
10	10.641	33.208	25.444
20	10.628	33.214	25.450
30	9.890	33.231	25.589
40	6.495	33.317	26.160
50	6.136	33.343	26.227
75	5.323	33.372	26.348
100	4.137	33.340	26.452
125	3.546	33.338	26.509
150	3.411	33.402	26.573
175	3.131	33.433	26.622
200	3.002	33.463	26.658
250	3.068	33.543	26.716
300	3.039	33.614	26.775
400	3.190	33.789	26.901
500	3.354	33.952	27.016
600	3.433	34.069	27.102
700	3.377	34.132	27.157
800	3.341	34.240	27.247
900	3.141	34.296	27.310
1000	2.945	34.351	27.372
1200	2.609	34.433	27.467
1500	2.301	34.508	27.553

Station OS14137
Latitude 41-30.04N
Longitude 144-14.96E
Depth(m) 2881

Press.	Temp.	Sal.	SIG-T
10	10.677	32.721	25.058
20	10.665	32.721	25.060
30	10.627	32.719	25.065
40	9.916	32.731	25.194
50	5.785	32.871	25.897
75	2.417	33.081	26.403
100	2.006	33.151	26.490
125	1.849	33.244	26.576
150	1.893	33.306	26.623
175	1.933	33.365	26.667
200	2.058	33.452	26.727
250	2.295	33.578	26.810
300	2.966	33.749	26.889
400	3.011	33.895	27.002
500	3.196	34.057	27.115
600	3.231	34.153	27.188
700	3.246	34.257	27.269
800	3.097	34.312	27.327
900	2.777	34.343	27.380
1000	2.773	34.405	27.431
1200	2.506	34.459	27.497
1500	2.215	34.522	27.571
2000	1.922	34.597	27.655

Station OS14138
Latitude 41-30.15N
Longitude 144-44.92E
Depth(m) 4565

Press.	Temp.	Sal.	SIG-T
5	10.849	32.607	24.939
10	10.862	32.607	24.937
20	10.658	32.595	24.963
30	10.580	32.593	24.975
40	10.376	32.597	25.013
50	5.856	32.933	25.936
75	2.651	33.101	26.399
100	3.110	33.231	26.463
125	3.059	33.301	26.524
150	2.744	33.371	26.607
175	2.788	33.491	26.699
200	2.788	33.556	26.751
250	2.953	33.681	26.836
300	3.202	33.804	26.912
400	3.404	33.986	27.038
500	3.392	34.101	27.131
600	3.243	34.207	27.230
700	3.113	34.278	27.299
800	2.934	34.342	27.366
900	2.791	34.384	27.412
1000	2.645	34.417	27.452
1200	2.425	34.474	27.516
1500	2.210	34.543	27.588
2000	1.883	34.604	27.663

Station OS14139
Latitude 41-0.01N
Longitude 144-45.09E
Depth(m) 6578

Press.	Temp.	Sal.	SIG-T
5	14.038	32.786	24.469
10	14.036	32.787	24.470
20	13.978	32.785	24.480
30	13.962	32.786	24.485
40	13.929	32.787	24.492
50	13.025	32.788	24.675
75	5.346	32.902	25.973
100	2.434	33.056	26.381
125	2.261	33.108	26.436
150	2.180	33.180	26.500
175	2.239	33.284	26.578
200	2.137	33.355	26.643
250	2.259	33.504	26.753
300	2.462	33.615	26.825
400	2.887	33.808	26.944
500	3.091	33.970	27.055
600	3.117	34.142	27.189
700	3.144	34.284	27.300
800	2.823	34.395	27.418
900	2.528	34.452	27.489
1000	2.364	34.489	27.533
1200	2.051	34.562	27.616
1500	1.881	34.597	27.658
2000	1.679	34.635	27.704

Station OS14140
Latitude 40-30.12N
Longitude 144-44.75E
Depth(m) 6575

Press.	Temp.	Sal.	SIG-T
5	12.896	32.793	24.704
10	12.889	32.793	24.705
20	12.717	32.817	24.758
30	12.672	32.861	24.800
40	12.541	32.925	24.875
50	4.903	32.887	26.011
75	2.618	33.101	26.402
100	2.788	33.224	26.486
125	2.708	33.306	26.558
150	2.336	33.368	26.638
175	2.480	33.468	26.706
200	2.792	33.561	26.755
250	2.955	33.679	26.834
300	3.228	33.789	26.898
400	3.334	33.945	27.013
500	3.469	34.112	27.132
600	3.345	34.205	27.219
700	3.171	34.282	27.296
800	3.020	34.335	27.352
900	2.837	34.377	27.402
1000	2.655	34.415	27.449
1200	2.455	34.473	27.513
1500	2.220	34.529	27.577
2000	1.896	34.602	27.661

Station OS14141
Latitude 39-59.92N
Longitude 144-45.41E
Depth(m) 5979

Press.	Temp.	Sal.	SIG-T
5	18.939	34.101	24.350
10	18.922	34.096	24.350
20	18.776	34.056	24.356
30	18.115	33.919	24.416
40	17.338	34.045	24.701
50	17.156	34.242	24.895
75	15.461	34.295	25.327
100	13.632	34.308	25.729
125	10.076	33.785	25.991
150	5.978	33.351	26.252
175	6.464	33.658	26.433
200	3.699	33.352	26.505
250	2.551	33.344	26.602
300	2.732	33.489	26.702
400	2.855	33.677	26.842
500	3.263	33.894	26.978
600	3.299	34.031	27.084
700	3.334	34.160	27.184
800	3.163	34.237	27.261
900	3.117	34.309	27.323
1000	2.962	34.364	27.381
1200	2.681	34.427	27.456
1500	2.345	34.500	27.543
2000	1.982	34.587	27.642

Station OS14142
Latitude 39-30.09N
Longitude 144-45.53E
Depth(m) 5849

Press.	Temp.	Sal.	SIG-T
5	18.329	34.062	24.472
10	18.325	34.062	24.473
20	17.509	34.138	24.731
30	17.212	34.181	24.835
40	16.875	34.212	24.939
50	16.703	34.220	24.986
75	14.065	34.267	25.607
100	11.461	34.164	26.040
125	9.813	34.064	26.252
150	9.163	33.989	26.300
175	8.237	33.865	26.347
200	5.901	33.586	26.448
250	3.855	33.387	26.518
300	2.848	33.320	26.558
400	1.625	33.326	26.658
500	1.780	33.425	26.726
600	2.242	33.578	26.813
700	2.870	33.776	26.919
800	3.388	33.988	27.041
900	3.539	34.166	27.169
1000	3.312	34.256	27.262
1200	2.931	34.363	27.382
1500	2.563	34.473	27.503
2000	2.078	34.572	27.622

Station OS14143
Latitude 39-0.01N
Longitude 144-44.71E
Depth(m) 5851

Press.	Temp.	Sal.	SIG-T
5	18.540	34.058	24.417
10	18.532	34.055	24.417
20	18.599	34.098	24.433
30	18.554	34.104	24.449
40	18.023	34.055	24.543
50	17.924	34.095	24.598
75	15.863	34.323	25.258
100	14.248	34.413	25.681
125	12.150	34.243	25.972
150	10.837	34.146	26.139
175	9.989	34.075	26.232
200	9.449	34.027	26.284
250	7.071	33.765	26.436
300	4.695	33.532	26.546
400	3.524	33.573	26.698
500	3.322	33.706	26.823
600	3.759	33.899	26.934
700	4.146	34.095	27.051
800	4.131	34.225	27.156
900	3.638	34.280	27.250
1000	3.378	34.336	27.320
1200	2.879	34.407	27.423
1500	2.496	34.487	27.520
2000	2.046	34.578	27.630

Station OS14144
Latitude 38-29.83N
Longitude 144-44.77E
Depth(m) 5583

Press.	Temp.	Sal.	SIG-T
5	16.018	33.528	24.612
10	15.999	33.522	24.611
20	17.069	33.931	24.678
30	17.074	33.933	24.678
40	17.077	33.934	24.678
50	17.079	33.935	24.678
75	13.073	34.063	25.653
100	8.899	33.739	26.146
125	6.408	33.506	26.321
150	5.567	33.470	26.396
175	6.397	33.711	26.483
200	3.813	33.366	26.505
250	2.978	33.407	26.615
300	2.941	33.511	26.702
400	3.577	33.787	26.863
500	3.344	33.910	26.984
600	3.837	34.109	27.094
700	3.853	34.219	27.180
800	3.414	34.267	27.261
900	3.126	34.312	27.324
1000	2.990	34.364	27.378
1200	2.660	34.436	27.466
1500	2.341	34.519	27.559
2000	1.967	34.591	27.647

Station OS14145
Latitude 38-30.17N
Longitude 144-14.98E
Depth(m) 6700

Press.	Temp.	Sal.	SIG-T
5	17.724	34.063	24.621
10	17.725	34.063	24.622
20	17.691	34.056	24.625
30	17.617	34.041	24.631
40	17.623	34.044	24.631
50	17.625	34.044	24.631
75	15.495	34.365	25.373
100	13.351	34.370	25.834
125	12.347	34.295	25.975
150	10.747	34.171	26.175
175	9.834	34.083	26.264
200	8.609	33.968	26.371
250	7.203	33.909	26.531
300	6.935	33.956	26.606
400	5.194	33.945	26.816
500	4.649	34.047	26.959
600	4.148	34.115	27.067
700	4.050	34.242	27.178
800	3.591	34.277	27.252
900	3.405	34.342	27.322
1000	3.047	34.374	27.381
1200	2.754	34.446	27.465
1500	2.407	34.507	27.543
2000	2.028	34.582	27.635

Station OS14146
Latitude 38-30.07N
Longitude 143-45.01E
Depth(m) 5390

Press.	Temp.	Sal.	SIG-T
10	17.803	34.229	24.730
20	17.620	34.230	24.775
30	17.398	34.221	24.821
40	17.362	34.226	24.834
50	17.321	34.228	24.845
75	15.373	34.459	25.473
100	12.752	34.302	25.901
125	11.982	34.287	26.039
150	10.948	34.196	26.159
175	10.219	34.130	26.235
200	9.470	34.044	26.294
250	6.826	33.781	26.482
300	5.181	33.689	26.616
400	4.116	33.774	26.799
500	4.558	34.085	26.999
600	3.791	34.101	27.092
700	3.653	34.195	27.181
800	3.501	34.313	27.289
900	3.115	34.379	27.379
1000	2.905	34.416	27.427
1200	2.639	34.452	27.480
1500	2.427	34.496	27.533
2000	2.154	34.561	27.607

Station OS14147
Latitude 38-30.15N
Longitude 143-15.28E
Depth(m) 2341

Press.	Temp.	Sal.	SIG-T
5	19.684	34.116	24.170
10	19.739	34.191	24.213
20	19.636	34.186	24.236
30	19.213	34.089	24.271
40	19.201	34.102	24.284
50	18.485	34.192	24.533
75	13.656	34.005	25.489
100	12.094	34.188	25.940
125	9.544	33.840	26.122
150	9.923	34.142	26.295
175	9.051	34.117	26.418
200	7.233	33.893	26.515
250	7.887	34.176	26.643
300	7.083	34.142	26.731
400	5.367	34.104	26.922
500	4.706	34.172	27.052
600	4.166	34.240	27.164
700	3.844	34.295	27.241
800	3.587	34.352	27.312
900	3.217	34.366	27.359
1000	2.921	34.390	27.405
1200	2.660	34.456	27.481
1500	2.334	34.519	27.559
2000	1.946	34.595	27.651

Station OS14148
Latitude 38-30.03N
Longitude 142-45.02E
Depth(m) 1484

Press.	Temp.	Sal.	SIG-T
5	13.165	32.677	24.561
10	12.753	32.660	24.629
20	13.478	33.252	24.944
30	11.973	33.727	25.606
40	11.512	33.800	25.749
50	10.754	33.790	25.877
75	9.075	33.841	26.199
100	6.064	33.475	26.340
125	3.520	33.308	26.487
150	5.176	33.603	26.548
175	3.297	33.430	26.605
200	4.479	33.614	26.634
250	5.276	33.842	26.726
300	5.301	33.935	26.796
400	4.796	34.069	26.960
500	4.322	34.160	27.084
600	3.862	34.223	27.182
700	3.594	34.277	27.252
800	3.370	34.329	27.315
900	3.080	34.371	27.375
1000	2.903	34.403	27.418
1200	2.550	34.456	27.490

Station OS14149
Latitude 38-29.74N
Longitude 142-15.0E
Depth(m) 707

Press.	Temp.	Sal.	SIG-T
5	15.789	33.806	24.877
10	15.781	33.861	24.921
20	15.695	33.876	24.952
30	15.130	33.823	25.036
40	14.997	33.820	25.063
50	14.889	33.823	25.089
75	8.839	33.199	25.733
100	7.205	33.578	26.271
125	6.278	33.558	26.378
150	4.424	33.385	26.458
175	3.148	33.281	26.500
200	3.201	33.354	26.554
250	2.576	33.405	26.648
300	2.599	33.506	26.727
400	3.198	33.789	26.901
500	3.909	34.063	27.050
600	3.445	34.134	27.153

Station OS14150
Latitude 39-00.12N
Longitude 141-54.99E
Depth(m) 137

Press.	Temp.	Sal.	SIG-T
10	15.576	33.591	24.759
20	15.604	33.648	24.797
30	15.631	33.721	24.847
50	15.627	33.739	24.862
75	15.661	33.756	24.867
100	15.581	33.809	24.926

Station OS14151
Latitude 38-59.98N
Longitude 141-59.76E
Depth(m) 196

Press.	Temp.	Sal.	SIG-T
10	15.592	33.041	24.332
20	15.564	33.109	24.391
30	15.605	33.220	24.467
50	15.728	33.404	24.581
75	15.810	33.568	24.689
100	15.727	33.771	24.864
150	15.269	34.037	25.171

Station OS14152
Latitude 39-29.89N
Longitude 142-10.98E
Depth(m) 234

Press.	Temp.	Sal.	SIG-T
10	15.275	33.990	25.133
20	15.183	33.988	25.151
30	15.116	33.985	25.164
50	14.941	33.973	25.193
75	14.340	33.916	25.278
100	12.943	33.935	25.579
150	12.024	34.063	25.857
200	8.373	33.802	26.277

Station OS14153
Latitude 39-29.96N
Longitude 142-06.03E
Depth(m) 146

Press.	Temp.	Sal.	SIG-T
10	16.202	33.941	24.887
20	16.187	33.939	24.889
30	16.155	33.938	24.896
50	15.494	33.969	25.068
75	15.258	33.977	25.127
100	14.745	33.966	25.230

Station OS14154
Latitude 39-59.99N
Longitude 142-15.10E
Depth(m) 239

Press.	Temp.	Sal.	SIG-T
10	13.995	33.856	25.304
20	13.997	33.858	25.305
30	14.001	33.862	25.307
50	13.945	33.891	25.342
75	13.584	34.016	25.512
100	12.571	34.000	25.703
150	8.512	33.731	26.200
200	4.487	33.407	26.469

Station OS14155
Latitude 39-59.99N
Longitude 142-05.91E
Depth(m) 126

Press.	Temp.	Sal.	SIG-T
10	15.295	33.986	25.126
20	14.883	33.997	25.224
30	14.717	33.999	25.262
50	14.475	33.987	25.305
75	14.299	33.993	25.347
100	14.151	34.003	25.385

Station OS14156
Latitude 42-15.25N
Longitude 141-46.05E
Depth(m) 697

Press.	Temp.	Sal.	SIG-T
10	13.195	33.983	25.566
20	13.072	34.011	25.613
30	13.066	34.024	25.624
50	13.019	34.037	25.643
75	12.781	34.057	25.706
100	11.404	34.087	25.991
150	6.045	33.554	26.404
200	4.819	33.530	26.530
300	2.721	33.463	26.682

Station OS14157
Latitude 42-1.34N
Longitude 141-29.16E
Depth(m) 458

Press.	Temp.	Sal.	SIG-T
10	14.027	33.993	25.403
20	13.683	33.976	25.461
30	13.622	33.971	25.470
40	13.609	33.971	25.473
50	13.611	33.972	25.473
75	13.301	34.069	25.611
100	11.702	34.073	25.925
125	11.140	34.095	26.045
150	10.328	34.044	26.149
175	5.381	33.475	26.422
200	4.965	33.545	26.525
250	3.839	33.558	26.655
300	3.118	33.597	26.755
400	2.974	33.648	26.808

Bottom Trawl Research

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

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

Table 3: Data on Bottom trawl research during the Oshoromaru Cruise#006

No. of research	Date and time of net tow (S.M.T.*1)		Position Lat. (N)	Position Long. (E)	T.D.*2	D.S.*3	Speed of tow (K't)	Bottom depth (m)	Wr.*4	Wind	S.T.*5 (℃)
OST1407	Nov. 9	0920-1020	42-11.0	141-48.5	+9h	110	3.0	664-823	bc	West-5	13.7
OST1408	Nov. 10	0855-0955	42-09.5	141-37.0	+9h	194	3.0	613	c	SSW-5	13.5
OST1409	Nov. 11	0740-0810	42-11.5	141-44.2	+9h	115	3.3	620-749	b	NE-3	13.2

*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 tow.

*4 Wr. : Weather (bc: 25-75% clouded, c: over 75-99% clouded).

*5 S.T. : Surface temperature

Japanese name	Scientific Name	OST1407		OST1408		OST1409	
		Number	Weight (kg)	Number	Weight (kg)	Number	Weight (kg)
Gangiei sp.	Bathyraja sp.	4	4.6	4	1.1	2	0.7
Irakoanago	*Synaphobranchus kaupii*	26	20.7	19	18.6	13	9.6
Hadakahoteieso	*Tactostoma macropus*	4	0.7	-	-	2	0.1
Eso rui	Synodontidae	-	-	-	-	1	0.1
Houraieso	*Chauliodus sloani*	1	0.1	-	-	1	0.1
Mamehadaka	*Lampanyctus jordani*	-	-	-	-	4	0.1
Sekkihadaka	*Symbolophorus californiensis*	-	-	-	-	4	0.1
Mizuuodamashi	*Anotopterus nikparini*	1	4.3	-	-	-	-
Hadakaiwashi	*Diaphus watasei*	1	0.1	-	-	-	-
Karasudara	*Halargyreus johnsonii*	1	1.7	-	-	-	-
Kanadadara	*Antimora microlepis*	36	11.5	12	4.7	16	6.7
Itohikidara	*Laemonema longipes*	200	55.9	2	0.1	4	0.2
Ibarahige	*Coryphaenoides acrolepis*	-	-	1	0.3	-	-
Karafutosokodara	*Coryphaenoides cinereus*	-	-	9	3.6	119	34.6
Touzin	*Coelorinchus*	-	-	1	0.9	-	-
Suketoudara	*Theragra chalcogramma* (Pa	3	2.8	-	-	-	-
Onikinme	*Anoplogaster cornuta*	-	-	-	-	1	0.1
Arasukabikunin	*Careproctus colletti*	1	1.5	-	-	-	-
Genge rui	Zoarcidae	153	69.9	101	48	89	38.1
Kichiji	*Sebastolobus macrochir*	111	22.3	139	25.5	74	15.6
Ganko	*Dasycottus setiger*	-	-	8	0.9	1	0.1
Nezumiginpo	*Lumpenella longirostris*	2	0.3	10	0.9	2	0.1
Kazika rui	Cottoidea	3	1.4	-	-	1	0.1
Aburagarei	*Atheresthes evermanni*	-	-	1	1.2	1	0.7
Samegarei	*Clidoderma asperrimum*	-	-	2	1.8	1	1.9
Dosuika	*Berrytenthis magister*	118	26.6	37	8.9	22	3.7
Tako-rui	*Octopuses*	44	15.4	14	15.1	4	1.6
Ezobai spp.	*Buccinidae spp.*	-	-	52	6.6	25	2.1
Kokonohoshiginzan	*Hydrolagus barbouri*	-	-	1	1.4	-	-
Kani sp.	Bracyyura	2	2.7	31	16.6	2	0.3