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THE "OSHORO MARU" CRUISE 018
TO EAST OF THE TSUGARU STRAIT
(IBURI / HIDAKA OFFING)
IN SEPTEMBER 2015

1.Cruise Itinerary

Cruise 018

Departure from Hakodate (Leg1) and Start hydrographic research	Sep. 23, 2015
Start bottom trawl research (OST1501)	24
Finish bottom trawl research (OST1502)	25
Arrival at Tomakomai	26
Departure from Tomakomai (Leg2) and finish hydrographic research	27
Return to Hakodate	29

Total coverage 763nm

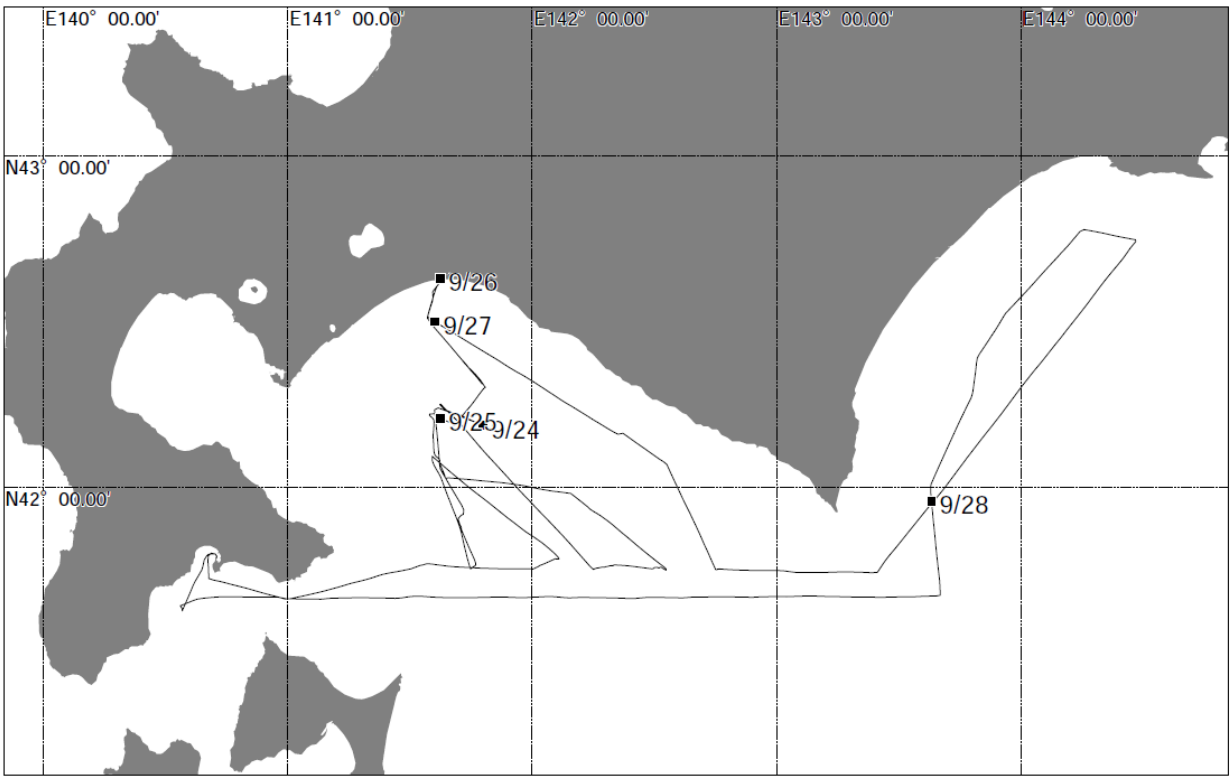

Fig. 1 Noon Position

2. Vessel Personnel

Crew: Captain: Associate Professor Shogo Takagi
And 31 persons

Under Graduate instructor: Professor (Laboratory of Marine Bio-resources Science, Hokkaido University) Leg1 Tetsuya Takatsu
Associate Professor (Laboratory of Marine Bio-resources Ecology, Hokkaido University)
Takashi Matsuishi
Associate Professor (Laboratory of Marine Environmental Science, Hokkaido University)
Atsushi Ooki
Associate Professor (Laboratory of Marine Biology and Biodiversity, Hokkaido University)
Leg1 Hisashi Imamura
Associate Professor (Laboratory of Marine Biodiversity, Hokkaido University)
Leg1 Atsushi Yamaguchi
Associate Professor (Laboratory of Marine Ecology, Hokkaido University)
Leg2 Yutaka Watanuki
Specially Appointed Assistant Professor
(School of Fisheries Sciences, Hokkaido University) Leg2 Mitsuhiro Nakaya

Teaching Assistant: Leg1 12 persons Leg2 9 persons
Under Graduate Student: Leg1 46 persons Leg2 45 persons

3. Items of Research

A short cruise to conduct shipboard training in hydrographic observations, plankton samplings, sighting survey of marine mammals and biological processing of trawl for undergraduate students in the department of marine biological science.

Bottom trawl observations:
Two operations of the stern otter bottom trawl were carried out. These operations were supervised by the captain, Deck officer, Science officer, crew, research staff, and cadets were engaged in the work.

Fig. 2 Table 1, 2

Figure 2 Locations of bottom trawl research

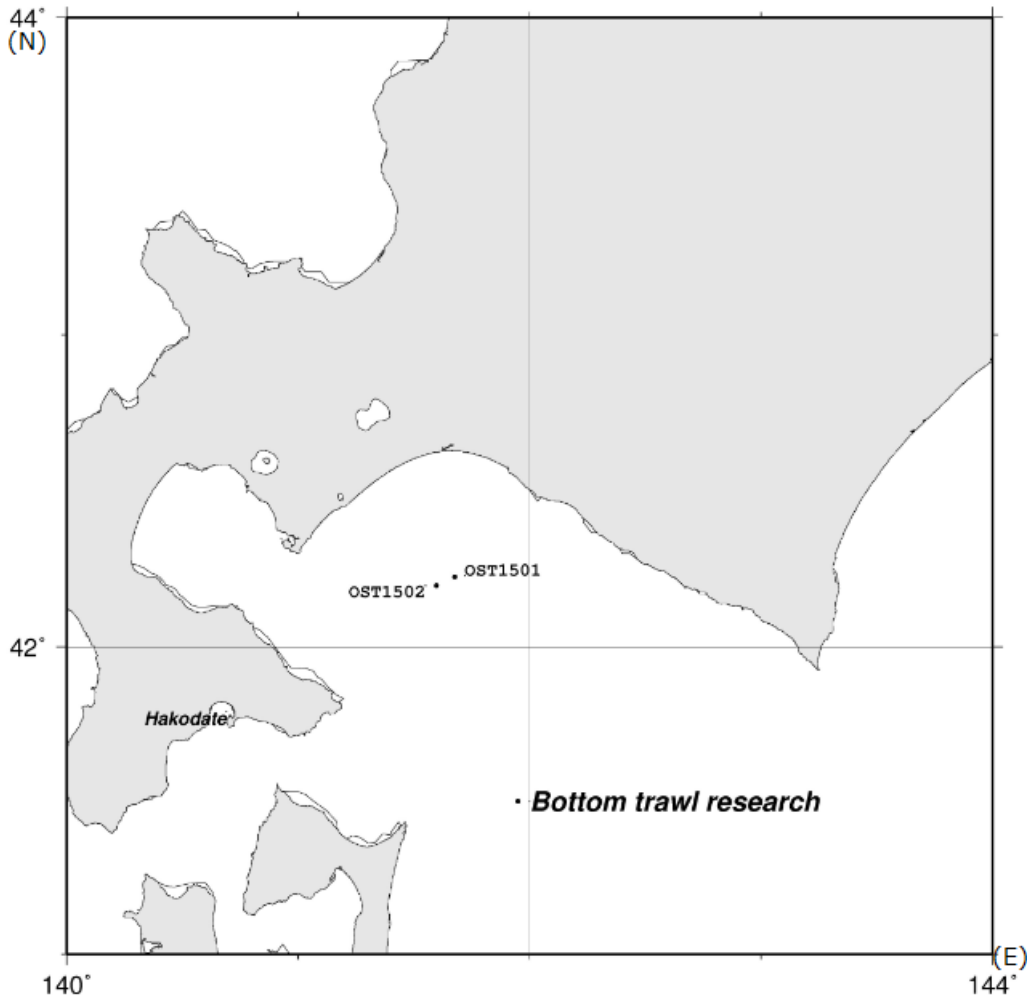

Table 1. Data on Bottom trawl research during the Oshoromaru Cruise#018

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 (Kt)	Bottom depth (m)	Wr.*4	Wind	SST*5 (℃)
OST1501	Sep. 24 1322-1430	42-13.5	141-40.6	+9h	290°	3.5	681	bc	SSE-3	20.3
OST1502	Sep. 25 0923-1030	42-11.9	141-35.9	+9h	5°	2.9	680	o	SE-5	19.9

*1 S.M.T.: Ship's Mean Time.
*2 T.D.: Time difference between Greenwich Mean Time (G.M.T.) and S.M.T.
*3 D.S.: Direction of tow
*4 Wr.: Weather in WMO Code 4501(bc: 25-75% clouded, o: 100% clouded)
*5 SST: Sea Surface temperature

Table 2. Data on catches by Bottom trawl research

Japanese name	Scientific name	OST1501		OST1502	
		Number	Weight (kg)	Number	Weight (kg)
Kanadadara	*Antimora microlepis*	10	0.48	12	2.95
Yasesokoiwashi	*Bathylagus pacificus*	1	0.1	-	-
Sokogangiei-zoku	*Bathyraja sp.*	5	1.6	2	1.7
Norogenge	*Bothrocara hollandi*	1	9	-	-
Shirogenge	*Bothrocara molle*	154	65.73	692	230.96
Kantengenge	*Bothrocara tanakae*	2	1.2	10	10.16
Ezobaigai-rui	*Buccinidae spp.*	19	0.8	166	12
Ogurokonnyakuuo	*Careproctus furcellus*	-	-	1	0.1
Higashihouraieso	*Chauliodus macouni*	2	0.1	-	-
Benizuwaigani	*Chionoecetes japonicus*	3	1	30	16.66
Samegarei	*Clidoderma asperrimum*	1	2.6	-	-
Ibarahige	*Coryphaenoides acrolepis*	1	0.3	-	-
Karahutosokodara	*Coryphaenoides cinereus*	280	59.7	14	3.5
Munedara	*Coryphaenoides pectoralis*	14	23.7	-	-
Ganko	*Dasycottus setiger*	4	0.5	8	1
Ika-rui	*Decapodiformes spp.*	320	97.05	49	9
Todohadaka	*Diaphus theta*	2	0.01	-	-
Akadonko	*Ebinania vermiculata*	1	1.2	-	-
Fujikujira	*Etmopterus splendidus*	-	-	1	0.08
Yokoeso	*Gonostoma gracile*	6	0.1	-	-
Karasudara	*Halargyreus johnsonii*	36	8	-	-
Namako-rui	*Holothuroidea spp.*	17	5.7	47	4.2
Yukihoraanago	*Ilyophis nigeli*	4	0.14	-	-
Itohikidara	*Laemonema longipes*	47	26.42	165	109.32
Mamehadaka	*Lampanyctus jordani*	5	0.1	3	0.06
Futasujinamehadaka	*Lestrolepis intermedia*	2	0.06	-	-
Togariichimonjiiwashi	*Leuroglossus schmidti*	31	0.1	5	0.015
Sokoiwashi	*Lipolagus ochotensis*	1	0.5	-	-
Nezumiginpo	*Lumpenella longirostris*	26	1.5	9	0.52
Kobushikajika	*Malacocottus zonurus*	-	-	1	0.05
Kyurieso	*Maurolicus japonicus*	-	-	1	0.005
Kurosokogisu	*Notacanthus chemnitzi*	1	0.25	-	-
Okuchiiwashi	*Notoscopelus japonicus*	-	-	1	0.05
Isaribihadaka	*Notoscopelus resplendens*	1	0.02	-	-
Tako-rui	*Octopodiformes spp.*	84	25.7	115	42.16
Hirainkiuo	*Paraliparis grandis*	-	-	1	0.25
Kurosokoiwashi	*Pseudobathylagus milleri*	3	0.2	1	0.01
Kichiji	*Sebastolobus macrochir*	144	31.5	187	37.16
Sekkihadaka	*Stenobrachius nannochir*	2	0.015	-	-
Irakoanago	*Synaphobranchus kaupii*	15	7.7	10	5.2