Mond	lay, 21 February 2011 Mombetsu Arts & Culture Center Place: 1F Garinko
9:00	[OPENING ADDRESS] Yoshikazu Miyakawa (Mayor of Mombetsu City) and Masaaki Aota (Chair, Okhotsk Sea & Cold Ocean Res. Association)
9:10	<ul> <li>K: KEYNOTE LECTURES</li> <li>Chair : Masaaki Aota (Okhotsk Sea Ice Museum of Hokkaido)</li> <li>K-1 Frontier of sea ice research</li> <li>Hiroyuki Enomoto (Dept. of Civil &amp; Environmental Engineering, Kitami Institute of Technology)</li> </ul>
9:50	<ul> <li>[K: SPECIAL LECTURES]</li> <li>K-2 Oil spills in ice covered waters: considerations on impacts, response and mitigation</li> <li>Larry D. Hinzman (International Arctic Research Center, University of Alaska, USA)</li> </ul>
10:30	BREAK
	[A: ENVIRONMENT, SEA ICE, etc.] Chair: Masaaki Aota (Okhotsk Sea Ice Museum of Hokkaido)
10:40	<b>A-1</b> Melted water of Okhotsk sea ice which flowed out to the East Hokkaido area
11:00	Chair: Yutaka Nagata (Marine Information Research Center) <b>A-2</b> Incorporation of nitrogen compounds into sea ice from atmospheric pollution  Oaiki Nomura (National Inst. of Polar Res.), Andrew McMinn (Univ. of Tasmania, Australia), Hiroshi Hattori (Tokai Univ.), Shigeru Aoki (Inst. of Low Temp. Sci., Hokkaido Univ.) and Mitsuo Fukuchi (National Inst. of Polar Res.)
10:20	<b>A-3</b> Effect of sulfur on the luminescence of <i>Vibrio fischeri</i> under nutrient-starved conditions
11:40	A-4 Determination of mercury resistant genes and heavy metal concentrations in drift ice collected from Antarctic and Okhotsk oceans
12:00	LUNCH
13:30	[ON NORTHERN PEOPLE] (in Japanese language only)
	Ancient people and natural environment Chair : Kazutoshi Sato (Mombetsu Museum)
	Utilization of plants by ancient people and climate change Goro Yamada (Historical Museum of Hokkaido)
	Livelihood of people in the time of Okhotsk Culture Naomi Kami (National Museum of Japanese History)

18:30 WHITE CONCERT < OKHOTSK SEA ICE MUSEUM>

Mond	ay, 21 February 2011 Mombetsu Arts & Culture Center Place: 3F Sea Ice
12:00	LUNCH
	Be prepared? No anxiety? Chair: Shintaro Goto (Rissho University)  OPENING ADDRESS Satoshi Ono (president of OEPN)  W-1 Sakhalin- II: Project Status and Oil Spill Response Oleg Sapozhnikov and Evgenia Oleinikova (Sakhalin Energy, Russia)  W-2 Wild sea bird of Mombetsu coast Kazuhiro Ohdate (Mombetsu Kaihatsu club)  W-3 The large-scale oil spill of Mexico Gulf and teachings Kuniaki Sasaki (Oil Pollution Consulting)  W-4 The Sakhalin project and Hokkaido fishery Kiyoshi Ishikawa  W-5 On the operation of remove and treatment of spilled crude oil Hiroaki Mori  W-6 Expectation for the civic activities for environmental disaster- Cooperation and control- Shin Onuki (The Japan Asoc. of Mar. Safety)  W-7 Accident prevention with wide-area monitoring system AIS Nobuhiro Sawano (Seiryo Women's Junior College)
	<ul> <li>W-8 Bio-treatment of spilled crude oil -Experiment of disassemble of oil Masaki Saito (Oita Industrial Res. Inst.)</li> <li>W-9 Establishment of measure conference to oil pollution shore of Mombetsu Shintaro Goto (Rissho Univ.)</li> </ul>
18:30	WHITE CONCERT < OKHOTSK SEA ICE MUSEUM>

Monda	ay, 21 February 2011 Mombetsu Arts & Culture Center Place: 3F Seal
12:00	LUNCH
12.00	
13:00	<ul> <li>[K: KEYNOTE LECTURES] Chair : Seiji Katakura (Mombetsu City)</li> <li>K-3 Ethnography of islands in the Pacific Ocean: ethnoarchaeological studies of Tropical Marine Resources</li> </ul>
	Ippei Kawasaki and Rintaro Ono (Tokai University)
14:00	Where have all the shellfishes gone? The utilization that there was in various ways  Masaya Yamada (Hokkaido Industrial Archaeology Society)
14:20	BREAK
	【B: BIOLOGY, PLANKTON, ICHTHYOLOGY, etc.】  Chair: Makoto Kashiwai (Tokyo University of Agriculture)
14:30	<b>B-1</b> A study of the tissue mucus quantitative estimation based on the comparison between histochemical morphometry and chemical analysis
14:50	<b>B-2</b> Community structure in Shikotsu Lake: evidence from stable isotope analysis
15:10	<b>B-3</b> Behavior of Brown Trout ( <i>Salmo trutta</i> ) from the biotelemetry studies in Lake Shikotsu
15:30	B-4 Water mass analysis for the phytoplankton spring bloom in the Oyashio region Seiji Ishikawa (Graduate School of Sci. Eng., Tokai Univ.) and Tokihiro Kono (Dept. of Mar. Biology Sci., Tokai Univ.)
15.50	Chair : Masaaki Aota (Okhotsk Sea Ice Museum of Hokkaido)
15:50	<b>B-5</b> Evaluation of nutrient flux in Shiretoko using MRI-GCM Ayinuer Abulizi (Kitami Institute of Technology)
16:10	<b>B-6</b> A Study on the power system frequency fluctuation due to wind power generation Junqiao Liu (Kitami Institute of Technology)
16:30	<b>B-7</b> Winter road freezing - Observation in Hokkaido and Alaska- Nuerasimuguli Alimasi (Kitami Institute of Technology)
18:30	WHITE CONCERT < OKHOTSK SEA ICE MUSEUM>

Tuesday, 2	22 February	2011
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Mombetsu Arts & Culture Center Place: 1F Garinko

	dy, 22 i colidary 2011 Monibelou Arto a Guitare Genter i lace. Il Guilliko
	【C: PLANKTON, FISHERIES, ENVIRONMENT】  Chair: Hiroshi Sasaki (Senshu University of Ishinomaki)
9:00	<b>C-1</b> Monthly variations of chlorophyll a concentrations and oceanographic conditions in the coastal area
	off the Pacific coast of Hokkaido, Japan ♦ Akira Kusaka (Hokkaido Natl. Fish. Res. Inst.), Takahiko Kameda (Ishigaki Tropical St., Seikai Natl. Fish. Res. Inst.) and Hiromi Kasai (Hokkaido Natl. Fish. Res. Inst.)
9:20	<b>C-2</b> Spatial variability in photosynthetic electron transport rates of ice algae in Saroma-ko Lagoon,
	Hokkaido
9:40	Satoru Taguchi (Soka University)  C-3 On characteristics of plankton community during the period of sea-ice retreat around Mombetsu - Results from the joint research of Hokkaido National Fisheries Research Institute, FRA, and Mombetsu City
	◇Hiromi Kasai (Hokkaido Natl. Fish. Res. Inst.), Ryuichi Nagata (Okhotsk Garinko & Tower Co., Ltd.), Seiji Katakura and Soshi Hamaoka (City of Mombetsu)
10:00	BREAK
	Chair : Yasunori Watanabe (Hokkaido National Fisheries Research Institute)
10:10	<b>C-4</b> The shell growth rate measurements of <i>Limacina helicina</i> juveniles collected in the coastal Okhotsk Sea
10:30	<b>C-5</b> Structure and quantitative description of zooplankton in Baikal Bay off northwestern Sakhalin in July 2009  Inga Nemchinova (Sakhalin Res. Inst. of Fish. & Oceanography, Russia)
10:50	C-6 Ichthyoplankton of Baykal Bay and adjacent waters (Northern Sakhalin) Olga N. Moukhametova (Sakhalin Res. Inst. of Fish. & Oceanography, Russia)
11:10	C-7 Life history and current state of fisheries of Japanese smelt ( <i>Hypomesus nipponensis</i> ) in Lake Abashiri, Hokkaido, Japan
	Shuichi Mano (Hokkaido Res. Organization, Salmon & Freshwater Fish. Res. Inst.)
12:00	LUNCH
13:10	[SYMPOSIUM ON SEA ICE FOR CHILDREN AND PARENTS] (in Japanese language only)
18:30	DINNER PARTY FOR FRIENDSHIP BETWEEN SCIENTISTS & VOLUNTEERS < MOMBETSU CENTRAL HOTEL>

Tuesday, 22 February 2011 Mombetsu Arts & Culture Center Place: 3F Se
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	ay, 22 February 2011 Mombetsu Arts & Culture Center Place: 3F Sea Ice
	【D: SEA ICE, OCEANOGRAPHY】 Chair: Noriaki Kimura (The University of Tokyo)
9:00	<b>D-1</b> Possibility of ice thickness retrieval in the Okhotsk Sea and the Lincoln Sea using ALOS/PALSAR
9:20	D-2 Warming trend in the Okhotsk Sea Intermediate Water in an ice-ocean coupled model
9:40	<b>D-3</b> Sea ice modeling in the East/Japan Sea
10:00	BREAK
10:10	Chair : Kanichiro Matsumura (Kwansei Gakuin University) <b>D-4</b> Process controlling the minimum ice extent in the Arctic  \$\triangle\$Yohei Tanaka, Hajime Yamaguchi and Noriaki Kimura (The University of Tokyo)
10:30	<b>D-5</b> Analysis of sea-ice tracks in the Sea of Okhotsk by using satellite images
10:50	D-6 Influence of Antarctic sea ice anomaly upon atmospheric circulation in the Southern Hemisphere by using AGCM
11:10	D-7 Experience of remote sensing data using for maintenance of fishery in the Far-Eastern Seas  \$\rightarrow\$Eugene Samko, Nafanail Bulatov, Larisa Muktepavel, Alexander Nikitin and Alexander Kapshiter (TINRO-Centre, Russia)
12:00	LUNCH
	[K: KEYNOTE LECTURES] Chair: Koh Izumiyama (North Japan Port Consultants Co., Ltd.)
13:00	<b>K-4</b> On the sustainable use of ice-covered seas from the technological aspects Hajime Yamaguchi (Graduate School of Frontier Sci., The Univ. of Tokyo)
13:40	BREAK
	[E: ARCTIC SEA ROTE, ICE ENGINEERING, ARCTIC OCEAN]
14:00	Chair : Hajime Yamaguchi (The University of Tokyo) <b>E-1</b> Investigation of infrastructures along the Northern Sea Route to Japan  Onatsuhiko Otsuka and Koh Izumiyama (North Japan Port Consultants Co. Ltd.)
14:20	<b>E-2</b> Arctic shipping for decades to come and Hokkaido Hiromitsu Kitagawa (Ocean Policy Research Foundation)
14:40	E-3 Interannual changes in sea ice area on the Northern Sea Routes obtained by satellite microwave sensors Hiroki Shibata (Dept. of Civil & Environmental Engineering, Kitami Inst. of Tech.),  ◇Koh Izumiyama (North Japan Port Consultants Co. Ltd.), Kazutaka Tateyama and Hiroyuki Enomoto (Dept. of Civil & Environmental Engineering, Kitami Inst. of Tech.)
15:00	BREAK
15:10	Chair : Koh Izumiyama (North Japan Port Consultants Co., Ltd.) <b>E-4</b> Investigation of effect of flow and channel condition against brash ice channel resistance Yuuki Watanabe and Akihisa Konno (Kogakuin University)
15:30	<b>E-5</b> Supporting high latitude transit analysis with NSR/NWP ice and environmental information Jung-Seok Ha, Kyungsik Choi, ◇Jong-Ho Nam and In-Ha Park (Korea Maritime University, Korea)
15:50	<b>E-6</b> Measurement of sea ice properties near the Svalbard Sea in 2009/10 winter season
18:30	DINNER PARTY FOR FRIENDSHIP BETWEEN SCIENTISTS & VOLUNTEERS < MOMBETSU CENTRAL HOTEL>

Tuesd	lay, 22 February 2011 Mombetsu Arts & Culture Center Place: 3F Seal
12:00	LUNCH
	【K: KEYNOTE LECTURES】 Chair: Shuhei Takahashi (Kitami Institute of Technology)
13:00	K-5 Mechanisms of Soya Warm Current in winter Humio Mitsudera (Inst. of Low Temp. Sci., Hokkaido University)
13:40	BREAK
	[F: OKHOTSK SEA, CLIMATE CHANGE, METROLOGY]
14:00	F-1 Correlations among monthly polar ice extent, global precipitation and temperature
14.20	Applied Informatics, School of Policy Studies, Kwansei Gakuin University)
14:20	F-2 Relation between draft ice and tempreture
14:40	<b>F-3</b> Climate change and its impact on bears in Japan Malcolm Fitz-Earle (Department of Biology, Capilano University, Canada)
15:00	<b>F-4</b> Seasonal and interannual variations of Amur River discharge and their relationships to large-scale
	atmospheric patterns and moisture fluxes  \$\rightarrow\$Yoshihiro Tachibana (JAMSTEC/Faculty of Bioresources, Mie Univ.), Kazuhiro Oshima (Faculty of Environmental Earth Sci., Hokkaido Univ.) and Masayo Ogi (JAMSTEC)
15:20	BREAK
	Chair : Yoshihiro Tachibana (Mie University)
15:30	<b>F-5</b> Extreme atmospheric circulation patterns during transition seasons and hydrography of the Okhotsk Sea Nikolay S. Vanin (TINRO-Center, Russia)
15:50	<b>F-6</b> Sea-ice extent variation along the Okhotsk coast of Hokkaido and its relation to climate change
16:10	<b>F-7</b> Results of data analyses of WOA05 on seasonal cycle of oceanographic processes and sub-basin-scale gyres in the Sea of Okhotsk  Makoto Kashiwai (Tokyo University of Agriculture)
16:30	<b>F-8</b> Results of data analyses of WOA05 on seasonal cycle of oceanographic processes and transport of nutrients between isopycnal surfaces in the Sea of Okhotsk  Makoto Kashiwai (Tokyo University of Agriculture)
18:30	DINNER PARTY FOR FRIENDSHIP BETWEEN SCIENTISTS & VOLUNTEERS < MOMBETSU CENTRAL HOTEL>

- Significance of existence of the seal specialty aquarium in the City of Monbetsu Nami Tomisawa and Yoshitsugu Hirosaki (Okhotsk Tokkari Center)
- Heart disease of a ribbon seal *Phoca fasciata* and the symptoms

  Masae Takaishi and Yoshitsugu Hirosaki (Okhotsk Tokkari Center)
- Activities of Okhotsk Tokkari Center
   Natsuki Miyazawa and Yoshitsugu Hirosaki (Okhotsk Tokkari Center)
- III. Preserve beautiful sceneries of glacier in Nepal and sea ice in Okhotsk Sea in pictures Hiromi Kyoo (Book Designer)

Wednesday, 23 February 2011 Mombetsu Arts & Culture Center Place: 3F Sea Ice

Carrioration of North Pacific Intermediate Water from two NOAA/GFDL coupled climate models, CM2G and CM2M - Young Gyu Park, Cheolon Korea) in Internet in Intern	Weam	esday, 23 February 2011 Mombetsu Arts & Culture Center Place: 3F Sea Ice
9:00 G-1 GIMS-Technology in monitoring marine ecosystems		
Ferdenant A. Mkrtchyan (V.A. Kotelnikov's Inst. of Radioengineering & Electronics, Russia)  9:40  G-3 Long-term variations in sea ice production in the Okhotsk Sea Haruhiko Kashiwase (Graduate School of Environmental Sci., Hokkaido Univ.), Kay I. Ohshima (Int. of Low Temp. Sci., Hokkaido Univ.) and Sohey Nihashi (Tomakomai National Collage of Tech.)  G-4 Formation of North Pacific Intermediate Water from two NOAA/GFDL coupled climate models, CM2G and CM2M	9:00	<b>G-1</b> GIMS-Technology in monitoring marine ecosystems
Haruhiko Kashiwase (Graduate School of Environmental Sci., Hokkaido Univ.), Kay I. Ohshima (Int. of Low Temp. Sci., Hokkaido Univ.) and Sohey Nihashi (Tomakomai National Collage of Tech.)  G-4 Formation of North Pacific Intermediate Water from two NOAA/GFDL coupled climate models, CM2G and CM2M  Young-Gyu Park, Cheolho Kim (Korea Ocean Res. & Develop. Inst., Korea) and Hojin Lee (Korea Maritime University, Korea)  BREAK  Chair: Yutaka Nagata (Marine Information Research Center)  G-5 Oceanic structure and currents in Indian Ocean  Takao Nakajin (Former staff in Inst. of Civilization Res., Tokai University)  G-6 Economic strategies for cushioning Japanese salmon fisheries against the effects of climate change    Ikutaro Shimizu (Natl. Res. Inst. of Fish. Sci., Fish. Res. Agency), Tsutomu Ohnuki and Kunio Abe (Natl. Salmon Resources Center, Fish. Res. Agency)  G-7 Interrelation of tropical cyclogenesis and seismic activity with satellite and ground-based data    Sergey Golovachev and Mstislav Dubrov (Kotel'nikov Inst. of Radioengineering & Electronics, Russia)	9:20	
CM2G and CM2M	9:40	Haruhiko Kashiwase (Graduate School of Environmental Sci., Hokkaido Univ.), Kay I. Ohshima (Int.
Chair: Yutaka Nagata (Marine Information Research Center)  10:30	10:00	CM2G and CM2M \$\rightarrow\$ Young-Gyu Park, Cheolho Kim (Korea Ocean Res. & Develop. Inst., Korea) and
<ul> <li>10:30 G-5 Oceanic structure and currents in Indian Ocean         Takao Nakajin (Former staff in Inst. of Civilization Res., Tokai University)     </li> <li>10:50 G-6 Economic strategies for cushioning Japanese salmon fisheries against the effects of climate change</li></ul>	10:20	BREAK
<ul> <li>10:50 G-6 Economic strategies for cushioning Japanese salmon fisheries against the effects of climate change</li></ul>	10:30	<b>G-5</b> Oceanic structure and currents in Indian Ocean
♦ Sergey Golovachev and Mstislav Dubrov (Kotel'nikov Inst. of Radioengineering & Electronics, Russia)	10:50	G-6 Economic strategies for cushioning Japanese salmon fisheries against the effects of climate change
11:30 [CLOSING ADDRESS]	11:10	
	11:30	[CLOSING ADDRESS]

10:00	LET'S LEARN THE NATURE OF OUR HOME MOMBETSU (in Japanese language only)
	PART I OUR WONDERFUL HOME MOMBETSU
	Coordinator : Michiaki Miyashita (Mombetsu Junior High School)
	Reports on fieldwork    Students of Mombetsu Junior High School
	On seal Mao Hayashi, Shota Kirai, Masahiro Kato and Toshimi Yuki (Mombetsu Junior High School, 1A) Environment of seal
	Masato Kanno, Kimiyoshi Sato, Yoshino Takamura and Mayu Tanaka (Mombetsu Junior High School, 1C) Gold mine in Mombetsu
	Daiki Watanabe, Takanori Atsumi and Yuya Kobayashi (Mombetsu Junior High School, 1B)
	Cooperation with the community in integrated studies of junior high school  Michiaki Miyashita (Mombetsu Junior High School)
11:00	Exchange opinions, question and answer     Coordinator : Takashi Kuwahara (Sea Ice Museum of Hokkaido)
12:00	LUNCH
13:30	PART   RETURN TO NATURE -DISCOVER OF WONDERS OF MOMBETSU-
	Coordinator : Masato Ikeuchi (Mombetsu High School) and Sea Ice Museum of Hokkaido
14:00	[Reports on fieldworks by Natural Science Club of Mombetsu High School]
	Reports on outdoor activities
	Experience of natural study for high school students  Masato Ikeuchi (Mombetsu High School)
	Masato Ikeuchi (Mombetsu High School)  Contribution of high school students to outdoor education of children
	Masato Ikeuchi (Mombetsu High School)  Contribution of high school students to outdoor education of children Chisato Tamehiro (Okhotsk Youth's House)  Cooperation of the integrated study of the junior high school
15:30	Masato Ikeuchi (Mombetsu High School)  Contribution of high school students to outdoor education of children Chisato Tamehiro (Okhotsk Youth's House)  Cooperation of the integrated study of the junior high school Michiaki Miyashita (Mombetsu Junior High School)  Case study of the support group network (Doto Net) of scientific education in the eastern part of Hokkaido
15:30	Masato Ikeuchi (Mombetsu High School)  Contribution of high school students to outdoor education of children Chisato Tamehiro (Okhotsk Youth's House)  Cooperation of the integrated study of the junior high school Michiaki Miyashita (Mombetsu Junior High School)  Case study of the support group network (Doto Net) of scientific education in the eastern part of Hokkaido Mayumi Sano (Kushiro Children's Museum Kodomo Yugakukan)

## **Poster Session**

- P-1 Oil spill detection under all weather conditions by using satellite imagery

  Masanao Hara, Hiromichi Yamamoto, Hiroshi Yagi and Masahiko Ichizuka (VisionTech Inc.)
- **P-2** Two Patterns of water circulation in the northern part of the Sea of Okhotsk (observed in April-June) Igor A. Zhigalov (TINRO-Centre, Russia) and Vladimir. A. Luchin (Pacific Oceanological Inst., Russia)
- **P-3** Interannual variability of intermediate waters characteristics in the Okhotsk Sea Vladimir A. Luchin (Pacific Oceanological Inst., Russia), Andrey A. Kruts (Far Eastern Regional Hydrometeorological Res. Inst., Russia) and Igor A. Zhigalov (TINRO-Centre, Russia)
- **P-4** Anomalous sea ice conditions in the Okhotsk Sea and features of the atmospheric circulation Elena I. Ustinova, Svetlana Yu. Glebova and Yury. D. Sorokin (TINRO-Centre, Russia)
- **P-5** Trends in long-term variability of hydrometeorological conditions Sea of Japan Boris S. Dyakov (TINRO-Centre, Russia)
- **P-6** Relationship between ice cover characteristics, air temperature and wind velocity fields in the northwestern Japan Sea

Svetlana P. Shkorba (V.I.Il'ichev Pacific Oceanological Inst., Russia)

- **P-7** Analysis of parameters of ice cover condition in Bering Sea
  Nadezda M. Vakulskaya (V.I.Il'ichev Pacific Oceanological Inst., Russia)
- **P-8** Interaction of Soya Warm Current water with anticyclonic eddies area in the southern Sea of Okhotsk according to satellite and ship data

Natalia B. Luk'yanova and Igor A. Zhabin (V.I.Il'ichev Pacific Oceanological Inst., Russia)

**P-9** Development of information system "Natural ecosystems exploitation, state and tendencies of changing of marine environment of coastal areas of Russia in the Japan/East Sea"

Igor Rostov, V. Rostov, N. Rudykh and E. Dmitrieva (V.I.Il'ichev Pacific Oceanological Inst., Russia)

- **P-10** Principles of physical-geographical regionalization of Arctic Shelf: the Kara Sea Andrey A. Bobkov and Kirill M. Petrov (Saint-Petersburg State University, Russia)
- **P-11** Near-bottom temperature and current variability features under ice in the cold period of 2005-2007 in the Amurskiy Bay (The Sea of Japan)
  - F. F. Khrapchenkov and Nadezhda M. Dulova (V.I.Il'ichev Pacific Oceanological Inst., Russia)
- **P-12** The evolution of ice conditions in the Japan Sea in the second half XX century

- at the beginning of the XXI century

Vladimir V. Plotnikov and E. M. Semenova (V.I.Il'ichev Pacific Oceanological Inst., Russia)

- **P-13** Experimental research of properties of modeling ice for abrasion process of concrete offshore Platforms Alexander T. Bekker, Igor G. Prytkov and Dmitrii S. Rusakov (Far Eastern Natl. Technical Univ., Russia)
- **P-14** Positive effects of anthropogenic factor on Pacific herring (*Clupea pallasii valenciennes*) spawning in Aldoma Bay (Northwestern part of the Okhotsk Sea)
  - S. D. Ponomarev (Khabarovsk Branch of the Pacific Research Fisheries Center, Russia)