

## December 3, Wednesday, 2008 (continued)

### Oral presentation

#### Session VII. Transdisciplinary Research Integration Center

#### 'Microbes on ice sheets and glaciers'

Chairperson: Baba, T. (NIG)

- OE-1 15:00-15:10  
Environmental and Genetical Approach for Life on Earth with a Study of Relevant Modeling and Prediction Techniques (EAGLE): Introduction  
Kanda, H. (TRIC)
- OE-2 15:10-15:30  
Microbial analysis of Antarctic ice sheet and subglacial samples drilled at Dome Fuji, Antarctica by 16S rRNA gene analysis  
Segawa, T., Uetake, J. (TRIC, NIPR), Rivera, A. (Centro de Estudios Cientificos),  
Motoyama, H., Kanda, H. (NIPR)
- OE-3 15:30-15:50  
Microorganisms density changes during glacial-interglacial cycle in Dome Fuji ice core  
Uetake, J., Segawa, T. (NIPR, TRIC), Motoyama, H., Kanda, H. (NIPR)
- OE-4 15:50-16:10  
Changes of biological community from the 1990s to 2008 on the Yala Glacier, Nepali Himalayas  
Takeuchi, N., Ishida, Y. (Chiba Univ.)
- OE-5 16:10-16:30  
Microbial flora of glaciers in West Greenland  
Kohshima, S. (Kyoto Univ.), Uetake, J. (NIPR), Takeuchi, N. (Chiba Univ.),  
Segawa, T. (NIPR), Naganuma, T. (Hiroshima Univ.), Hebsgaard, M. (Copenhagen Univ.),  
Kanda, H. (NIPR)
- OE-6 16:30-17:00  
Probing for hydrocarbon degradation genes in drilling fluid in the deepest borehole at Vostok, East Antarctica as an extreme icy econiche  
Alekhina, I. (OMRB, Petersburg Nuclear Physics Institute RAS, Russia),  
Petit, J. R. (Laboratory of Glaciology and Geophysics of Environment, CNRS-UJF.),  
Bulat, S. (OMRB, Petersburg Nuclear Physics Institute RAS, Russia)
- OE-7 17:00-17:30  
Hidden life in extreme Subglacial Lake Vostok, East Antarctica  
Bulat, S. (OMRB, Petersburg Nuclear Physics Institute RAS, Russia)

## Poster presentation (13:25-14:55)

### **Transdisciplinary Research Integration Center**

- PE-1 DNA analysis of a single pollen grain from Antarctic snow  
Nakazawa, F., Uetake, J. (NIPR, TRIC), Kanda, H. (NIPR)
- PE-2 Spore forming halophilic bacteria isolated from Arctic terrains  
Yukimura, K., Naganuma, T. (Hiroshima Univ.), Kohsima, S. (Kyoto Univ),  
Uetake, J., Kanda, H. (NIPR)
- PE-3 Characteristics of impurities in ice cores drilled on the mountain glaciers  
Ishida, Y., Takeuchi, N. (Chiba Univ.), Li, Z. (Tianshan Glaciological Station)
- PE-4 Tardigrada on the Qiyi Glacier in the Qilian Mountains, western China.  
Takagi, Y., Takeuchi, N. (Chiba Univ.)
- PE-5 Variations in Sr, Nd isotopic ratio of surface dust on Asian glaciers  
Nagatsuka, N., Takeuchi, N. (Chiba Univ.), Nakano, T. (RIHN)

18:00 Reception

**December 4, Thursday, 2008**

**Oral presentation**

**Session VIII. Transdisciplinary Research Integration Center**

**'Life in the extreme environments'**

**Chairperson: Imura, S. (NIPR)**

- OE-8 10:00-10:20  
Genome Analysis of Antarctic Bacteria  
Yanagihara, K., Baba, T., (TRIC), Niki, H. (NIG)
- OE-9 10:20-10:40  
Phylogenetic characterization of non-rRNA sequences from uncultured environmental microbe mixtures on the basis of Batch Learning Self-Organizing Map (BLSOM)  
Abe, T. (Nagahama Institute of Bio-Science and Technology), Sugawara, H. (NIG),  
Kanaya, S. (NAIST), Ikemura, T. (Nagahama Institute of Bio-Science and Technology)
- OE-10 10:40-11:00  
Comparative genomic analysis of the nematodes in Antarctica  
Kagoshima, H., Kohara Y. (NIG)
- OE-11 11:00-11:20  
Phylogenetic diversity of ammonia monooxygenase genes in sediment of Suribati Ike, Antarctica  
Kaneko, R. (TRIC, NIPR), Imura, S. (NIPR), Seto, K. (Shimane Univ.), Kanda, H. (NIPR)
- OE-12 11:20-11:40  
Environmental change in the Syowa Station area of Antarctica inferred from diatoms of Lake Skallen O-ike sediment core  
Ohtani, S. (Shimane Univ.), Ohtsuka, T. (Lake Biwa Museum),  
Inoue, G. (Otsuma Women's Univ.), Seto, K., (Shimane Univ.)
- OE-13 11:40-12:00  
Interesting microorganisms in the Antarctica  
Imanaka, T. (Ritsumeikan Univ.)

12:00-13:00 Lunch

13:00-14:00 Transdisciplinary Research Integration Center /Terrestrial Biology Poster Session

**Session IX. Terrestrial Biology**

**'Ecosystem dynamics in polar regions'**

**Chairperson: Ohtani, S. (Shimane Univ.)**

OT-1 14:00-14:20

Population changes of moss inhabiting fungi at the north side cliff of Japanese Ny-Ålesund observatory, Spitsbergen Island, Norway from 2003 to 2008

Tokura, K., Tojo, M., (Osaka Pref. Univ.), Hoshino, T. (AIST),

Kida, K. (Osaka Pref. Univ., Kumiai Chemical Industry Co., Ltd.), Kanda, H. (NIPR)

OT-2 14:20-14:40

Photosynthetic characteristics of biological soil crusts in a High Arctic glacier foreland in Ny-Ålesund, Svalbard

Yoshitake, S. (Waseda Univ.), Uchida, M. (NIPR), Koizumi, H. (Waseda Univ.),

Kanda, H. (NIPR), Nakatsubo, T. (Hiroshima Univ.)

OT-3 14:40-15:00

Environmental changes in the Syowa Station area of Antarctica estimated from organic components in sediment core from Lake Skallen Oike.

Matsumoto, G. I., Moriyama, T. (Otsuma Women's Univ.), Tazawa, T.,

Takemura, T. (Tokyo Univ. Sci.), Seto, K. (Shimane Univ.), Watanabe, T. (Tohoku Univ.),

Nakamura, T. (Nagoya Univ.), Imura, S., Kanda, H. (NIPR)

OT-4 15:50-15:20

Long-term monitoring on the limnological parameters in Skarvsnes lakes, East Antarctica

Kudoh, S. (NIPR, SOKENDAI), Tanabe, Y. (SOKENDAI)

OT-5 15:20-15:50

Soil habitats of a coastal Antarctic environment: Primavera Station, Danco Coast, Antarctic Peninsula

Bölter, M. (Institute of Polar Ecology, Christian-Albrechts-Universität zu Kiel),

Mataloni, G. (Ciudad Univ, Argentina), Möller, R.,

Scheltz, A. (Institute of Polar Ecology, Christian-Albrechts-Universität zu Kiel)

15:50-17:00 Tansdisciplinary Research Integration Center /Terrestrial Biology Poster Session

17:00 Presentation Award (Tansdisciplinary Research Integration Center /Terrestrial Biology)

Poster presentation (13:00-14:00, 15:50-17:00)

**Transdisciplinary Research Integration Center /Terrestrial Biology**

- PE-6 Altitudinal distribution of microorganisms in the Mocho Glacier in Chile  
Yoshimura, Y. (Tamagawa Univ.), Segawa, T. (NIPR), Taguchi, Y. (Tamagawa Univ.),  
Iida, T. (Tamagawa Univ.), Naganuma, T. (Hiroshima Univ.), Casassa, G. (CECS, Chile),  
Kohshima, S. (Kyoto Univ.)
- PE-7 Microbial community at deep-sea hydrothermal area in South Mariana Trough  
Kato, S., Yokobori, S., Yamagishi, A. (Tokyo Univ. Pharm. Life Sci.)
- PE-8 Genetic diversity of cyano- / proteobacterial RuBisCO in an Antarctic moss pillar  
Nakai, R., Naganuma, T. (Hiroshima Univ.), Kagoshima, H., Niki, H., Kohara, Y. (NIG),  
Imura, S., Kanda, H. (NIPR), Yanagihara, K., Baba, T. (TRIC), Abe, T. (Nagahamabaio Univ.)
- PE-9 3D image analysis and genome plan in Polar regions *Bryophyta*  
Kobayashi, S. (TRIC), Kanda, H. (NIPR), Fujiyama, A. (NII),
- PE-10 Peri-Ice Ecosystem Exploration Project  
Imura, S. (NIPR), Sugiyama, S. (ILTS), Fukui, K. (NIPR)
- PE-11 Differences in stoichiometry between bryophytes and vascular plants in a high Arctic  
Ueno, T. (NIPR), Osono, T. (Kyoto Univ.), Kanda, H. (NIPR)
- PE-12 Lichen communities in Yukidori Valley of Langhovde  
Inoue, M. (Akita Univ.)
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- PT-1 Photosynthetic characteristics of lichens on a glacier foreland, in Ny-Ålesund, Spitsbergen, Norway  
Inoue, T. (SOKENDAI), Kudoh, S., Uchida, M., Kanda, H. (NIPR)
- PT-2 Lichen species on lignum in the coastal regions of Western Spitsbergen (Svalbard)  
Węgrzyn, M., Osyczka, P. (Jagiellonian University, Poland)
- PT-3 Psychrophilic bacteria isolated from Antarctic soil associated with terrestrial moss vegetation  
Kurosawa, N., Torii, T. (Soka Univ.), Imura, S. (NIPR), Naganuma, T. (Hiroshima Univ.)
- PT-4 Isolation Culture of psychrophilic bacteria from plants and animals in Antarctica  
Takahashi, T., Yamamoto, T., Aso, Y., Ohtani, S. (Shimane Univ.), Kondo, T.,  
Kasai, W. (Kyushu Univ.), Kanda, H., Imura, S., Kudoh, S. (NIPR)
- PT-5 Isolation and characterization of psychrophilic lactic acid bacteria from plants and animals in Antarctica  
Aso, Y., Takahashi, T., Yamamoto, T., Ohtani, S. (Shimane, Univ.), Kanda, H., Imura, S.,  
Kudoh, S. (NIPR)
- PT-6 The basidiomycetous yeast, *Leucosporidium antarcticum* formed frost-pillar-like colony on frost medium  
Fujiu, S. (Hokkaido Univ.), Hoshino, T. (Hokkaido Univ., AIST), Yoshida, M. (NARCH),  
Kudoh, S. (NIPR)
- PT-7 Biodiversity and environmental adaptations of fungi in terrestrial ecosystem around Syowa station, East Antarctica  
Hoshino, T., Xiao, N., Fujiu, S. (Hokkaido Univ., AIST), Inaba, S. (NBRC, NITE), Degawa, Y. (Kanagawa Pref. Museum), Yaguchi, T. (MMRC, Chiba Univ.), Tojo, M. (Osaka Pref. Univ.),

- Matsumoto, J. (Fukui Botanical Garden), Kudoh, S. (NIPR)
- PT-8 Detection of antimicrobial resistant bacteria from the Antarctic birds  
Kaneko, C., Ishikawa, K. (Rakuno Gakuen Univ.), Hirono, I. (Tokyo Univ. Mar. Sci. & Tech.),  
Kanda, H. (NIPR), Tamura, Y. (Rakuno Gakuen Univ.)
- PT-9 Analysis of eukaryotic community structure in the Antarctic lake “Suribati-ike” sediment  
Zhang, H., Hosoi-Tanabe, S., Nagata, S. (Kobe Univ.), Ban, S. (Shiga Pref. Univ.),  
Imura, S. (NIPR)
- PT-10 Analysis of bacterial diversity and dimethyl sulfoxide respiring bacteria of Antarctic salt lakes  
Matsuzaki, M., Wakitani, M., Takahashi, Y. (Hiroshima Univ.), Hoshino, T. (AIST),  
Kasamatsu, N., Kudoh, S., Imura, S. (NIPR)
- PT-11 Antifungal activity of *Trichoderma polysporum* isolated from a moss on Spitsbergen Island for several  
snow mold fungi  
Yamazaki, Y., Tojo, M. (Osaka Pref. Univ.),  
Kida, K. (Osaka Pref. Univ., Kumiai Chemical Industry Co.Ltd. Japan,  
Hoshino, T. (AIST), Kanda, H.(NIPR)
- PT-12 Epidemiology of tar spot and rust diseases of polar willow - Effects of moss covering of ground  
on occurrence of the tar spot and rust diseases -  
Tojo, M. (Osaka Pref. Univ.)
- PT-13 Effect of temperature on substrates utilization pattern by soil microorganisms on Ellesmere Island,  
High Arctic Canada  
Uchida, M. (NIPR), Yoshitake, S. (Waseda Univ.), Nakatsubo, T. (Hiroshima Univ.),  
Kanda, H. (NIPR)
- PT-14 The effects of culture conditions for investigating soil algal flora around Syowa Station  
Chikuni, T. (Tsukuba Univ.), Ohtani, S. (Shimane Univ.), Inouye, I. (Tsukuba Univ.)
- PT-15 Responses of benthic algal communities living in Antarctic freshwater lake to light environmental change  
Tanabe, Y. (Grad. Univ. Adv. Stud.), Kudoh, S. (Grad. Univ. Adv. Stud., NIPR)
- PT-16 Physiological characteristics of Antarctic terrestrial photosynthetic organisms  
Satoh, K., Katashima, Y., Kosugi, M. (Univ. Hyogo), Kudoh, S. (NIPR), Kashino, Y.,  
Koike, H.(Univ. Hyogo)
- PT-17 Characterization of safe sites for vascular plants on a recently-deglaciated moraine in Ellesmere island,  
high arctic Canada  
Mori, A. (Yokohama Natl. Univ.), Uchida, M., Kanda, H. (NIPR)
- PT-18 Water absorption from needle surface of *Pinus pumila*  
Kume, A. (Kyushu Univ.)
- PT-19 Why the growth of sphagnum mosses is restricted in the Midagahara Plateau, Mt. Tateyama, in Toyama  
Prefecture, Japan  
Maeda, Y., Kume, A. (Kyushu Univ.)
- PT-20 Vegetation and distribution of *Polygonum viviparum* in Mibu cirque at South Alps of Japan  
Tomita, M. Masuzawa, T. (Shizuoka Univ.)

- PT-21 Timberline of Mt.Fuji –Structural change in timberline during 20 and 30 years-  
Masuzawa, T. Ohishi, K. Tomita, M. (Shizuoka Univ.), Sakio, H. (Niigata Univ.)
- PT-22 Altitudinal distribution of microfungi associated with *Betula ermanii* leaf litter on Mt. Rishiri, northern Hokkaido  
Osono, T. (Kyoto Univ.), Hirose, D. (Nihon Univ.)
- PT-23 Harpacticoid copepods from a saline lake in East Antarctica  
Takahashi, K. T., Kudoh, S. (NIPR), Tanabe, Y. (SOKENDAI), Saito, K. (NIG),  
Tanimura, A. (Mie Univ.), Kikuchi, Y. (Ibaraki Univ.)
- PT-24 The effect of UV-radiation on human fibroblasts in two-dimensional cultivation and artificially reconstructed skin  
Iwano, K., Yamamoto, T., Takahashi, T., Aso, Y., Ohtani, S.(Shimane Univ.), Kanda, H., Imura, S.  
Kudoh, S. (NIPR), Irie, S., Hattori, S., Tanaka, K. (Japan Institute of Leather Research/Nippi)
- PT-25 <sup>137</sup>Cs and <sup>40</sup>K in food chains of King George Island (South Shetlands, Antarctica)  
Olech, M. A. (Jagiellonian Univ. Poland, Department of Antarctic Biology,  
Polish Academy of Sciences, Poland),  
Sobiech-Matura, K., Masniak, A. (Jagiellonian Univ. Poland),  
Mietelski, J.W. (The Henryk Niewodniczanski Institute of Nuclear Physics,  
Polish Academy of Sciences, Poland)
- PT-26 Evolution and adaptation of living in the extreme environments 1. Organic condition  
Mita, H. (Fukuoka Inst. Technol.), Hashida, C. (Yasuda Women's Univ.),  
Hashimoto, H. (JAXA/ISAS), Hidaka, T., Kawasaki, Y. (Inst. Advanced Studies),  
Kishimoto, M. (Obihiro Univ. Agri. Vet. Med.), Kobayashi, K. (Yokohama Natl. Univ.),  
Miyakawa, A. (Shizuoka Univ.), Naganawa, K. (Yokohama Natl. Univ.),  
Ogawa, M. (Yasuda Women's Univ.), Satoh, S. (Yokohama Natl. Univ.), Suzuki, A. (Keio Univ.),  
Takahashi, J. (NTT), Takano, Y. (JAMSTEC), Tsuji, T.(Tamagawa Univ.),  
Wakana, I. (Kushiro Edu. Res. Cent.), Yamada, K. (Obihiro Univ. Agri. Vet. Med.),  
Yabuta, H. (Osaka Univ.), Yoshimura, Y.(Tamagawa Univ.)
- PT-27 Evolution and adaptation of living in the extreme environments 2. bacteria and microorganisms  
Hashida, C. (Yasuda Women's Univ.), Hashimoto, H. (JAXA), Hidaka, T.,  
Kawasaki, Y. (Inst. Advanced Studies), Kishimoto, M. (Obihiro Univ. Agri. Vet. Med.),  
Kobayashi, K. (Yokohama Natl. Univ.), Mita, H. (Fukuoka Inst. Technol.),  
Miyakawa, A. (Shizuoka Univ.), Naganawa, K. (Yokohama Natl. Univ.),  
Ogawa, M. (Yasuda Women's Univ.), Satoh, S. (Yokohama Natl. Univ.), Suzuki, A. (Keio Univ.),  
Takahashi, J. (NTT), Takano, Y. (JAMSTEC), Tuji, T. (Tamagawa Univ.),  
Wakana, I. (Kushiro Edu. Res. Cent.), Yamada, K. (Obihiro Univ. Agri. Vet. Med.),  
Yabuta, H. (Osaka Univ.), Yoshimura, Y. (Tamagawa Univ.)
- PT-28 Aliens in Antarctica: A report of JARE49  
Tsujimoto, M. (SOKENDAI), Imura, S., Kanda, H. (NIPR)

**December 5, Friday, 2008**

Oral presentation

**Session X. Marine Biology ‘Southern Ocean Biology: international networks’**

**Chairperson: Fukuchi, M. (NIPR)**

OM-1 10:00-10:30

Australian and Japanese research in the Antarctic: the benefits of cooperation

Kawaguchi, S. (AAD)

OM-2 10:30-11:00

Success of the Collaborative East Antarctic Marine Census (CEAMARC) Survey: setting the benchmark of marine biodiversity to understand climate change impacts.

Hosie, G.W. (AAD), Koubbi, P. (Université de Paris VI),

Ozouf-Costaz, C. (Muséum National d'Histoire Naturelle), Riddle, M. (AAD),

Ishimaru, T. (Tokyo Univ. Mar. Sci. & Tech.), Goffart, A. (Université de Liège),

Stoddart, D.M. (AAD), the CEAMARC Team

OM-3 11:00-11:30

Relationship between distribution of Antarctic krill (*Euphausia superba*) and environmental index MTEM-200 in the entire Antarctic Ocean

Naganobu, M. (NRIFS), Kitamura, T.,

Hasunuma, K. (Ocean Science and Technology Integrators)

OM-4 11:30-12:00

Fine-scale linkages between foraging penguins and marine habitat features in South Orkney Islands, Antarctica

Takahashi, A. (NIPR), Watanabe, S. (Fukuyama Univ.), Kokubun, N. (SOKENDAI),

Naito, Y. (NIPR), Miyazaki, N. (Univ. Tokyo), Trathan, P. (BAS)

12:00-13:00 Lunch

13:00-14:00 Marine Biology Poster Session

**Session XI. Marine Biology ‘Marine environment and organisms’**

**Chairperson: Takahashi, K. T. (NIPR)**

OM-5 14:00-14:20

Spatial variation of oceanic  $p\text{CO}_2$  in the Southern Ocean at Umitaka-maru cruise 2007/08.

Nakaoka, S. (NIPR, NIES), Fukuchi, M. (NIPR), Nakazawa, T. (Tohoku Univ.)

Yoshikawa, H. (Hokkaido Univ.), Hashida, G., Yamanouchi, T. (NIPR),

Ishimaru T. (Tokyo Univ. Mar. Sci. & Tech) Tsumori, H., Nojiri, Y. (NIES)

- OM-6 14:20-14:40  
Primary productivity derived from phytoplankton absorption coefficient in the Southern Ocean  
Takao, S., Hirawake, T., Saitoh, S. (Hokkaido Univ.), Horimoto, N., Ishimaru, T., Yamaguchi, Y. (Tokyo Univ. Mar. Sci. & Tech.)
- OM-7 14:40-15:00  
Zooplankton community structure off Lützow-Holm Bay: Special reference to smaller taxa  
Makabe, R. (NIPR), Tanimura, A. (Mie Univ.), Fukuchi, M. (NIPR)
- OM-8 15:00-15:20  
Bacterial community structures and luminescence of the fecal pellets of Antarctic krill and salps  
Nishikawa, J., Tada, Y. (Tokyo Univ.), Wada, M. (Nagasaki Univ.), Hamasaki, K. (Tokyo Univ.)
- OM-9 15:20-15:40  
Animal-borne cameras show interactions among sea-ice, krill and foraging penguins  
Watanabe, S. (Fukuyama Univ.), Takahashi, A., Naito, Y. (NIPR), Miyazaki, N. (Tokyo Univ.), Trathan, P. (BAS)
- OM-10 15:40-16:00  
Long term variability of Chl-a and nutrient concentrations in the Southern Ocean using JARE monitoring datasets.  
Iida, T., Kasamatsu, N., Odate, T., Fukushi, M. (NIPR), Hirawake, T. (Hokkaido Univ.)

16:00-17:00 Marine Biology Poster Session

17:00 Presentation Award Marine Biology/ Closing remarks

## Poster presentation (13:00-14:00, 16:00-17:00)

### Marine Biology

- PM-1 Distribution and variation of oceanic CO<sub>2</sub> system in the Southern Ocean in summer of 2008  
Hifumi, K. (Hokkaido Univ.), Hashida, G., Nakaoka, S., Fukuchi, M. (NIPR)  
Yoshikawa, H. (Hokkaido Univ.)
- PM-2 How do krill affect the DMS distribution in the Southern Ocean?  
Kasamatsu, N. (NIPR), Kawaguchi, S. (AAD), Fukuchi, M. (NIPR)
- PM-3 Discrimination of phytoplankton functional group using spectral shape of absorption coefficient in the Southern Ocean  
Kondo, N., Hirawake, T., Saito, S. (Hokkaido Univ.)
- PM-4 Light acclimation states of phytoplankton in Antarctic Ocean as assessed by photosynthetic pigment distribution  
Kashino, Y. (Univ. Hyogo), Hashihama, F. (Tokyo Univ. Mar. Sci. & Tech.), Watanabe, K., Fukuchi, M. (NIPR), Satoh, K. (Univ. Hyogo), Kudoh, S. (NIPR)
- PM-5 Population dynamics of an ice-associated diatom, *Thalassiosira australis* Peragallo, under fast ice near Syowa Station, East Antarctica, during austral summer  
Ichinomiya, M., Nakamachi, M. (TNFRI), Fukuchi, M. (NIPR), Taniguchi, A. (Tokyo Univ. Agri.)

- PM-6 Diel changes in vertical distribution of small copepods under sea ice in mid-summer near Syowa Station, Antarctica  
Tanimura, A. (Mie Univ.), Hattori, H. (Tokai Univ.),  
Miyamoto, Y., (Tokyo Univ. Mar. Sci. & Tech.), Sasaki, H. (Senshu Univ. Ishinomaki),  
Hoshiai, T., Fukuchi, M. (NIPR)
- PM-7 Community structure and carbon biomass of epipelagic zooplankton off Lutzow-Holm Bay in 2005 and 2006  
Sawabe, E., Horimoto, N., Moteki, M. (Tokyo Univ. Mar. Sci. Tech.), Tanimura, A. (Mie Univ.),  
Ishimaru, T. (Tokyo Univ. Mar. Sci. & Tech.)
- PM-8 Metabolic rates of Antarctic zooplankton during austral summer 2008  
Ono, A., Hashihama, F., Ayukawa, K., Ishimaru, T. (Tokyo Univ. Mar. Sci. & Tech.)
- PM-9 Distribution of planktonic cnidarians off Lützow-Holm Bay, Southern Ocean  
Toda, R., Moteki, M., Ishimaru, T. (Tokyo Univ. Mar. Sci. & Tech.)
- PM-10 Community structure of copepods in the Ross Sea (175°E)  
Watanabe, Y. (Tokyo Univ. Mar. Sci. & Tech.), Sawamoto, S. (Tokai Univ.),  
Ishimaru, T. (Tokyo Univ. Mar. Sci. & Tech.), Naganobu, M. (NRIFSF)
- PM-11 The mitochondrial genome sequences of antarctic copepods *Calanus simillimus*, *Calanus propinquus*,  
*Calanoides acutus*  
Saito, K., Shinya, M., Sakai, N. (NIG), Fukuchi, M., Odate, T., Takahashi, K.T. (NIPR)
- PM-12 The structural and functional characteristics of the vision in *Champscephalus gunnari*  
(Channichthyidae)  
Miyazaki, T. (Mie Univ.), Iwami, T. (Tokyo Kasei Gakuin Univ.), Yamauchi, M. (NIRS),  
Shimizu, R., Yamauchi, S. (Mie Univ.)
- PM-13 Larvae-carrying behavior of *Harpagifer antarcticus* Nybelin (Notothenoidei, Harpagiferidae) reared in  
an aquarium  
Saito, F. (Tokyo Sea Life Park), Iwami, T. (Tokyo Kasei Gakuin Univ.),  
Tada, S., Sasamura, S., Mimori, R., Ikeda, M. (Tokyo Sea Life Park)
- PM-14 Measurements of air-sea ice CO<sub>2</sub> flux over landfast sea ice in the Arctic Ocean, off Barrow, Alaska  
Nomura, D., Shirasawa, K. (Hokkaido Univ.), Eicken, H.,  
Gradinger, R. (Univ. of Alaska Fairbanks)
- PM-15 Photosynthetic properties of phytoplankton inhabiting Mackenzie Shelf  
Aikawa, S. (Univ. Hyogo), Sampei, M. (Laval Univ.), Hattori, H. (Tokai Univ.),  
Sasaki, H. (Ishinomaki Senshu Univ.), Fukuchi, M. (NIPR), Satoh, K. (Univ. Hyogo),  
Kudoh, S. (NIPR), Tremblay, J.-E. Fortier, L. (Laval Univ.), Kashino, Y. (Univ. Hyogo)
- PM-16 Seasonal change of sediment trap-collected pteropod (*Limacina helicina*, *Gastropoda: Thecosomata*) in  
Amundsen Gulf, 2004-2006  
Akiha, F., Takahashi, Y., Sasaki, H. (Ishinomaki Senshu Univ.), Sampei, M. (Laval Univ.),  
Hattori, H. (Tokai Univ.), Fukuchi, M. (NIPR)

- PM-17 Seasonal variation of trap-collected copepod *Metridia longa* in Amundsen Gulf, 2004-2006  
Suzuki, T., Sasaki, H. (Isinomaki Senshu Univ.), Sampei, M. (Laval Univ.),  
Hattori, H. (Tokai Univ.), Fukuchi, M. (NIPR)
- PM-18 Preliminary results from the IPY cruise of T/V Oshoro Maru in Bering and Chukchi Seas  
Hirawake, T., Fujiwara, A., Matsumoto, K., Saitoh, S., Kaeriyama, H.,  
Yabe, M. (Hokkaido Univ.)
- PM-19 Size-fractionated chlorophyll *a* and primary production in the coastal area of Shiretoko Peninsula  
Shiomoto, A. (Tokyo Univ. Agri.)
- PM-20 Temporal change in fractionized Chlorophyll-*a* in sea-ice and water column in Notoro-ko Lagoon  
Nishino, Y., Sato, T., Taniguchi, A. (Tokyo Univ. Agri.)
- PM-21 PSII electron transport and quenching of chlorophyll fluorescence of ice algal community in Saroma-ko Lagoon, Hokkaido  
Obata, M., Taguchi, S. (Soka Univ.)
- PM-22 Effects of UV radiation on bacterial community composition in the western North Pacific  
Kataoka, T. (Hokkaido Univ.), Hodoki, Y. (Shimane Univ.), Higashi, S. (Hokkaido Univ.)
- PM-23 Cetacean Sighting Survey within Pack Ice using Ice Breaker, Shirase  
Shimada, H. (NRIFSF)
- PM-24 Dive angles and stroke patterns of migrating elephant seals: comparison among dive functions  
Mitani, Y. (NIPR), Sato, K. (Univ. Tokyo), Costa, D. P.,  
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- PM-25 Monitoring swimming behavior in the captive northern fur seal with acceleration data logger  
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- PM-26 Foraging ranges of streaked shearwaters in response to the seasonal environmental changes in the Kuroshio-Oyashio transition region, northwestern Pacific  
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- PM-27 Inter-annual change of water mass use during diet switching by Rhinoceros Auklet  
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- PM-28 GPS tracking suggests dynamic soaring of Black-footed Albatrosses  
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- PM-29 Diving behaviour of Chinstrap penguins in relation to breeding stage and sex  
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