Program of the Third International Symposium of the Arctic Research
and
Seventh Ny-Ålesund Scientific Seminar
22–24 February 2005, Tokyo

Open Forum: Arctic environment today  over all expediting: Y. Fujii
Opening address: H. Sato, H. Shimamura

1. S. Akasofu  Roles of IARC in integrating/synthesizing arctic climate change research
2. S. Kohshima  Glacier Ecosystem
3. T. Yamanouchi  Overview of “Variations of Atmospheric Constituents and their Climatic Impact in the Arctic”
4. A.B. Herber  Arctic study of tropospheric aerosols, clouds, and radiation—Outline and results of Arctic aircraft campaigns
5. M. Fukuchi  Marine production in the Arctic: Results of Canada–Japan cooperative research
6. L. Fortier  Polynyas: windows on a future, warmer, Arctic Ocean
7. H. Kanda  Researches on terrestrial ecosystem in the Arctic and Japanese activities
8. E.J. Cooper  The effects of goose grazing and climatic warming on Svalbard tundra productivity
9. T. Aso  On our polar upper atmosphere research in the Arctic
10. A. Brekke  Svalbard; a platform for upper polar atmosphere research

Closing of the Open Forum: G. di Prisco

Glaciological environments in the Arctic I  chair: F. Nishio

Geoscience in the Arctic  chair: F. Nishio
102. M. Kanao et al.  Lithospheric structure and evolution of Northern Siberia, Arctic Russia, derived from geoscience investigations

Arctic marine ecosystems  chair: M. Fukuchi, H. Sasaki
103. I.A. Melnikov  Structure of the coastal ice ecosystem in the zone of sea-river interactions
104. P. Wassmann  Carbon flux and ecosystem feed back in the northern Barents Sea in an era of climate change (CABANERA)
105. H. Sasaki et al.  Sedimentation of biogenic particles in the Canadian Arctic polynyas
106. Y. Kashino et al.  Strategy for photosynthetic acclimation against the environmental change in psychrophilic phytoplankton inhabiting Arctic polynya as assessed by pulse amplitude modulation method (PAM)
107. H. Svendsen et al.  Arctic fjords as climate indicators
108. C. Verde et al.  The adaptive evolution of polar fish: structure, function and molecular phylogeny of hemoglobin
109. F. Mehlum  Co-variation between climate signals and breeding phenology of high-arctic breeding kitiwakes

Arctic terrestrial ecosystems  chair: H. Kanda, M. Bölter
110. S. Kojima  Syntaxonomical classification and ecological characterization of the high arctic vegetation in Canada and Svalbard
111. M. Bölter et al.  A survey of soils and soil biological characteristics from Arctic Canada (TNW99)
112. T. Nakatsubo  Ecosystem development and carbon cycle on a glacier foreland in Ny-Ålesund, Svalbard
113. M. Uchida et al.  Net ecosystem production over a snow-free season on a glacier foreland in Ny-Ålesund, Svalbard
Y. Harazono et al. Temporal and spatial differences of methane emission and uptake at Arctic and sub-arctic tundra in Alaska

T. Sweda et al. Quantification of terrestrial carbon stock and its change in Arctic/boreal zone using airborne laser profiling/scanning

Poster Session

P-01 R. Neuber et al. The joint French-German Arctic research platform on Spitsbergen
P-02 O.S. Savoskul Present and LGM climate in the Arctic: interaction of ocean and glaciation
P-03 O. Magand et al. Analysis of $^7$Be, $^{209}$Pb, $^{210}$Po and $^{137}$Cs air concentrations in Ny-Ålesund (Svalbard) and during Arctic Ocean 2004 expedition (CHIMERPOL project)
P-04 L. Girard et al. Investigation of minor atmospheric mercury depletion events observed at Zeppelin, Ny-Ålesund, in early and late spring 2003
P-05 S. Nakaoka et al. Temporal and spatial variations of oceanic partial pressure of CO$_2$ and air-sea CO$_2$ flux in the Greenland and Barents Seas
P-06 Y. Inomata et al. Distribution of carbonyl sulfide (COS) concentration in the troposphere and lowermost stratosphere between Japan and the Arctic observed by Arctic Airborne Measurement Program 2002 (AAMP02)
P-07 N. Hirashawa et al. Vertical structure in air temperature of the arctic lower troposphere sounded by dropsonde observation related to AAMP 2002
P-08 T. Garbrecht et al. Influence of sea ice ridges and polynyas on the structure of the polar atmospheric boundary layer
P-09 V.N. Makarov Monitoring of acid precipitation in central Yakutia (Russia)
P-10 M. Shibahara et al. The Arctic MPL measurement at Ny-Ålesund for ground truth of the ICESat/GLAS cloud and aerosol measurements
P-11 M. Yabuki et al. Characteristics of cloud distribution from all-sky camera and micro-pulse lidar measurements at Ny-Ålesund
P-12 H. Konishi et al. Seasonal variation of precipitating clouds at Ny-Ålesund, Arctic
P-13 K. Shiraishi et al. OPC, LPC and lidar observations of stratospheric aerosol over Ny-Ålesund in the winter of 2002-2004
P-14 T. Garbrecht et al. Sensor network for polar research aircraft
P-15 H. Yabuki et al. The long term hydrological and meteorological monitoring on Tundra region near Tiksi, eastern Siberia
P-16 T. Petelski et al. Studies of physical properties of Arctic aerosols
P-17 T. Ohata New project of WCRP “Climate and Cryosphere (CliC)”
P-18 T.J. Yasunari et al. Dust transport, deposition, and variations on Mt. Wrangell, Alaska, and their implications to material circulation
P-19 S. Kanamori et al. Detailed density profiles in Mts. Logan and Wrangell—meaning as climate signals—
P-20 K. Satow et al. Stratigraphical studies in accumulation area of McCall glacier, Alaska, 2003-2004
P-21 F. Nakazawa et al. Reconstruction of mean summer air temperature variations by using an ice core from a wet-snow zone on a summer-accumulation-type glacier
P-22 T. Segawa et al. Snow algae and pollen in the snow pit samples from Mt. Logan, Canada
P-23 M. Yoshioka et al. Change of glaciers in Spitsbergen observed with surface photographs
P-24 S.M. Arkhipov et al. Geochemistry of the nival-glacial complexes of Eurasian Arctic
P-25 N. Kurita et al. Isotopic composition and origin of snow over Siberia
P-26 K. Dale The Arctic Marine Laboratory in Ny-Ålesund, Svalbard Norway
P-27 N. Tanaka et al. Comparative study on deficiency of N-nutrient deduced from Beaufort and Laptev Sea expeditions data (JWACS and NABOS cruises)
P-28 S. Aikawa et al. Photosynthetic properties of phytoplankton inhabiting the Mackenzie Shelf
P-29 T. Ota et al. Succession of microzooplankton and their grazing activity in the Canadian Arctic winter (CASES2004)
P-30 H. Hattori et al. Sequential zooplankton trap and its preliminary result obtained in the Amundsen Gulf, Canadian Arctic in the CASES 2003-2004
P-31 M. Sampei et al. Spatial changes in the particle fluxes in the southeast Beaufort Sea
Y. Ropert-Coudert et al.  Swim speed of male and female great cormorants in relation to prey escape speeds

S. Yoshitake et al.  Characterization of soil microflora on a successional glacier foreland in Ellesmere Island using phospholipid fatty acid analysis

M. Uchida et al.  Net photosynthesis, respiration and primary production of the lichen Cetrariella delisei in Ny-Ålesund, Svalbard

T. Ueno et al.  Growth pattern of a common feather moss, Hylocomium splendens from contrasting water regimes in a high arctic tundra

T. Ohtsuka et al.  Primary succession and soil development on a glacier foreland in Ny-Ålesund, Svalbard

A. Mori et al.  Initial recruitment and establishment of vascular plants in relation to topographical variation in microsite conditions on a recently-deglaciated moraine in Ellesmere Island, high arctic Canada

T. Osono et al.  Chemical property of plant leaves in a polar oasis in high-arctic Canada: comparison between xeric and mesic deglaciated chronosequences

H. Muraoka et al.  Leaf photosynthetic characteristics and net primary production of vascular plant species in high-arctic, Ny-Ålesund, Svalbard

S. Nishitani et al. Germination characteristics of Arctic Polygonum viviparum in Ny-Ålesund, Svalbard

M. Ueyama et al. Micrometeorological measurements of methane flux at boreal forest in central Alaska

L.S. Buzoleva et al. Biological control of environment of far eastern north-east coast

B. Howe et al.  Overview of Canadian Arctic scientific research issues, organizations and opportunities

V.D. Suvorov et al. Deep structure and tectonics around the Baikal Rift Zone, Russia, from temporary broadband seismic observations

S. Toda et al. Conversion tectonics and crustal structure around Magadan-Kolymsoe region, Far East, Russia, from deep seismic exploration

J. Lee et al. Late quaternary paleoenvironmental change in the Saint Anna Trough, Arctic Russia

H. Yoon et al. Glaciomarine sedimentation and its paleoclimatic implications on the West Spitsbergen fjord (Isfjorden) over the last 15000 years

K. Tsubone et al. Simultaneous observation of ion upflow events using all-sky spectrograph and EISCAT Svalbard radar

M. Tsutsumi et al. Seasonal variations of atmospheric gravity wave activities in the Arctic mesopause region

Overview  

F. Mehlum  Coordination of international research in Svalbard—new initiatives from the Research Council of Norway

Glaciological environments in the Arctic II  

Y. Zhang et al.  Evaporative loss of snow cover in Northern Eurasia sub-Arctic region

J. Uetake et al. Cryobiological ice core analyses in Sofiøskiy glacier, Russia

C.P. Ferrari et al. Two years of mercury atmospheric chemistry study in Ny-Ålesund, Svalbard. Air to snow interaction. Seasonal evolution of mercury deposited onto Kongsvegen Glacier

D. Steinhage et al.  Ice thickness and basal reflectivity in Northeast Greenland derived from airborne radio-echo sounding

Atmospheric environment in the Arctic  

K. Aoki et al.  Aerosol optical characteristics in Ny-Ålesund derived from Sky radiometer

R. Treffeisen et al. Study of radiative effects of arctic aerosols bases on airborne measurements: a case study for March

I.S. Stachlewska et al.  Arctic aerosol observations using airborne lidar during ASTAR 2004
J. Ström et al.  Origin of new particles in the summer Arctic boundary layer: can simple sulfur chemistry explain observations?

A. Matsuki et al.  Mixing state and spatial distribution of tropospheric aerosols derived from in situ aircraft measurements during ASTAR 2004

J.-F. Gayet et al.  Microphysical properties of an Arctic stratocumulus cloud observed during ASTAR experiment

J.-F. Gayet et al.  Microphysical and optical properties of mixed-phase clouds obtained from alternated lidar and in situ measurements

V. Velazco et al.  Long-term measurements of Arctic trace gases in Ny-Ålesund Spitsbergen by fourier transform infrared spectroscopy; Effects of biomass burning emissions

I.-T. Pedersen et al.  Investigation of how observed methane concentrations in Ny-Ålesund are influenced by atmospheric flow patterns

M. Wolff et al.  A new light-weight balloon borne optical sensor for measuring vertical profiles of stratospheric trace gases

E. Raschke et al.  The radiation budget of the atmosphere over the Arctic computed from the ISCCP data set

T. Ohata et al.  Sensitivity of hydrological conditions to climate change in Siberian tundra

Arctic upper atmosphere environment  

T. Aso et al.  A study on Arctic mesosphere and lower thermosphere tidal dynamics by meteor, EISCAT and other radar observations

Y. Miyoshi et al.  Day-to-day variations of the diurnal and semidiurnal tides in the MLT region simulated by a GCM

B. Gustavsson  Gyroharmonic effects in HF radio induced optical emissions