

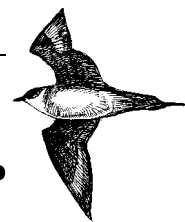
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Ny-Ålesund Newsletter



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Inauguration ceremony for the new Arctic Marine Laboratory in Ny-Ålesund

1 June the Norwegian Prime Minister Kjell Magne Bondevik conducted the official opening of the new Arctic Marine Laboratory in Ny-Ålesund. The inauguration ceremony took place outside the entrance of the laboratory. Speeches were held by the Norwegian Minister of Justice Odd Einar Dørum, Chairman of the Board of Kings Bay AS, Mr. Knut M. Ore, Director of ConocoPhillips Norway, Mr. Trond Erik Johansen, Chairman of the Board of Barlindhaug AS, Mr. Johan Petter Barlindhaug and by the marine scientist Prof. Dr. Christian Wiencke, Alfred Wegener Institute. The laboratory was declared opened when Prime Minister Bondevik cut of a bundle of sea weeds with a diver's knife. After the opening the marine lab coordinator Kjersti Dale from Kings Bay AS guided Prime Minister Bondevik and the other 80 invited guest through the laboratory.

The Arctic Marine Laboratory is ideal for research in marine ecology, physiology, and biochemistry as well as some physical sciences. The lab is a proper experimental laboratory with system-control of the experimental variables temperature and salinity, and it is feasible to conduct experiments under ambient conditions (e.g. ambient seawater and light). The new laboratory contains some basic equipment and instruments.

The ground level of the lab is basically a storage room. The first floor houses scientific equipments, labs, freezers, holding tanks for organisms, etc. The second floor mainly comprises the water treatment system, office of the lab coordinator and a lecture room for more than 20 persons. In addition you find the divers facilities on this floor.

After the scientific test period was completed as planned in the middle of May, scientists and divers from the Alfred-Wegener-Institut have moved into the laboratory to carry out real experiments. The laboratory is reported to function as planned.

Kings Bay AS looks forward to welcoming scientist to the new Arctic Marine Laboratory.

For further information about the laboratory facilities and registration of projects in the lab, please contact the lab coordinator and scientific adviser in Kings Bay AS :
Ms. Kjersti Dale e-mail: forskning@kingsbay.no
Telephone 79 02 72 52.

Aina Holst, Kings Bay AS

Climate Change Seminar in Ny-Ålesund 2nd June 2005

In cooperation with the Prime Minister's Office, Kings Bay organized a seminar on Climate Change the day after the opening of the Arctic Marine Laboratory. The purpose was to present to the high level audience an insight into the latest status regarding possible global climate changes.

The seminar was opened by Norway's Prime Minister, Mr Kjell Magne Bondevik. He expressed deep concerns about the future climate development and the possible resulting challenges.

As a start, it was focused on climate change in the Arctic by presenting the results from the ACIA report (Arctic Climate Impact Assessment). Dr. Pål Prestrud, Director of CICERO

(Centre for climate research at the University in Oslo) and member of the Board of Kings Bay AS gave an oversight. He was followed by Dr. Eystein Jansen, Director for the Bjerknes Centre for Climate Research with his talk on "The Role of the Arctic for Climate Change – Current Research Challenges".

Since marine ecosystems are central in the climate development – and Ny-Ålesund facilities now has been extended with the marine laboratory – we wanted to bring the marine dimension into the discussion. Professor Katherine Richardson, University of Aarhus, Denmark held a speech on "Global Change and Marine Ecosystems, an Arctic Perspective".

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To bring in the global dimension, Dr. Rajendra Pachauri, Chairman of the Intergovernmental Panel for Climate Change (IPCC) talked about the climate change from a global perspective.

Jan-Gunnar Winther, Director of Research at (and the coming Director of) the Norwegian Polar Institute brought the focus back to Svalbard in his speech on "The Role of Svalbard in Climate Research and Perspectives for the International Polar Year".

The speeches were the background for an interesting discussion where several of the most influential political decision makers showed their concern and made their comments. Both the Prime Minister and the Minister of Justice participated in the discussion.

The seminar was closed by Arvid Hallén, General Director of Research Council of Norway. He stressed the importance of continued research – vital to gain as much knowledge for future decisions as possible.

The seminar - chaired by professor Olav Orheim, Director of the Norwegian Polar Institute - got much recognition from the participants and should lay the basis for constructive further efforts in this important field – vital to us all.

Knut M. Ore, Kings Bay AS

Ny-Ålesund Workshop 2nd June 2005

By Jan-Gunnar Winther, NPI

In the afternoon of 2nd June a workshop with focus on developing Ny-Ålesund as an international research platform was held. 33 participants took part in the workshop that was opened by the director of Kings Bay, Oddvar Midtkandal.

Fridtjof Mehlum from the Research Council of Norway gave an overview of the historical development of Ny-Ålesund, especially with respect to research activities. Further, he presented the Norwegian initiative for strengthening the coordination of research in Ny-Ålesund. This initiative was launched by the interministerial polar committee in Norway in 2004. It is recommended to establish policies for data management, organising seminar series, and developing a science plan for Ny-Ålesund to improve research coordination.

Next, Jan-Gunnar Winther from the Norwegian Polar Institute gave some perspectives on the development in Ny-Ålesund, including ideas for how to use the International Polar Year (IPY) as an opportunity for increased research collaboration.

Christian Wiencke from the Alfred Wegener Institute gave a presentation on marine research in Kongsfjorden.

Finally, Simon Stephenson from the National Science Foundation presented US perspectives regarding research development in Ny-Ålesund.

The presentations were followed by a plenary discussion. This discussion used collaboration during IPY as a starting point since IPY deadlines are close and it was agreed that the ambition should be that Ny-Ålesund became an IPY "super site". Several international and interdisciplinary initiatives for

IPY proposals using Ny-Ålesund as a research facility were identified. It was concluded that NySMAC and principal investigators for Ny-Ålesund IPY proposals should meet in the autumn of 2005 (back to back with the next NySMAC meeting in Andøya, probably in late October) to ensure optimal synergism between projects that plan activities in Ny-Ålesund during IPY.

First Joint AWI - IPEV Workshop for scientific collaboration on Svalbard

By Roland Neuber & Franck Delbart

For the Joint French-German Arctic Research Base in Ny-Ålesund, a first joint workshop for the base guests has been held at the ESF in Strasbourg on 2 and 3 March 2005. The goal of the workshop was to mutually inform researchers travelling to the base and to catalyse new proposals for joint research projects. The workshop was centered around three major topics, namely atmospheric, biological, and geophysical research. Keylectures introduced the topics and each research group could present their recent results and planned projects on posters. Introductory lectures were given by the ESF, AWI, IPEV, and KB directors, as well as by J.-B. Ørbæk from NP in order to set the international frame of our work in Ny-Ålesund.

The workshop was attended by 35 researchers from France and Germany.

As direct results of the workshop about 6 new, joint proposals were drafted and the corresponding logistical requirements for the workshop were determined. These new proposals are of course, like the ones running on the French-German Base, very open to any form of collaboration which would come from others countries. (contact : awipecv@potsdam.de).

Details of the workshop are available under "Events" on the AWI-IPEV base Webpage <http://www.ipev.fr/awipecv>

Foraging Ecology of Bearded Seals +++

By Kit M. Kovacs & Christian Lydersen, NPI

During the next 3 years, we will perform a series of investigations to explore the dynamics of bearded seal foraging and the effects of these activities on benthic communities of the Arctic. We will: 1) complete data collection from captive bearded seal experiments in one final set of trials that includes pressure measurements (and also finish analysing and writing up the previously commenced anatomical investigations of whisker morphology and anatomy, and biokinematic studies with the captive animals); 2) deploy cameras on bearded seals in **Kongsfjorden** to document their foraging activities and its physical impacts on the substrate in the wild; 3) explore the relationship between the animals actual behaviour and assessments of behaviour based on dive profiles alone; 4) explore diet via isotope analyses of various tissues, and fatty acid profiles in bearded seals compared to potential prey and 5) directly explore benthic community assemblages at, near and outside bearded seal foraging areas in order to assess the impacts of bearded seal feeding on the benthic communities composition and productivity

in the Arctic. In addition we will deploy state-of-the-art satellite tags in order to study the ontogeny of diving and add to our pup growth and pup-production estimates.

This work is being conducted by an international team of researchers including Drs. Kit M. Kovacs and Christian Lydersen of the Norwegian Polar Institute in Tromsø, Dr. Chris Marshall of Texas A & M University in Galveston Texas, Dr. Mark Hindell of the University of Tasmania, Hobart Australia and Dr. Mike Fedak of the Sea Mammal Research Unit, St Andrews University, St Andrews, Scotland.

Polar sunrise mercury campaign

By Torunn Berg, NILU

The now traditional polar sunrise mercury campaign was carried out mid April - mid May with French and Norwegian scientists. The aim of the campaigns is to study the fate of atmospheric mercury during polar spring. This year we had an event lasting almost one week where elemental mercury was depleted and where concentrations of more oxidized mercury species increased.

Arctic fox den monitoring program and population dynamic on Svalbard

By Eva Fuglei, NPI

The arctic fox den survey in Kongsfjorden-Brøggerhalvøya has been conducted since 1990. This is a long term monitoring project in NP, reporting data to MOSJ.

The objective of the project is to study the population dynamic of the arctic fox on Svalbard. To do this we resume the long term data series on known arctic fox den sites and arctic fox reproduction in Kongsfjorden-Brøggerhalvøya. The den survey in Kongsfjorden-Brøggerhalvøya is conducted annually during 7 days in July.

Ice-core drilling

By Elisabeth Isaksson, NPI

In April a field team from NPI, University of Utrecht and Uppsala University drilled a 125 m deep ice core on Høltedahlfonna about 50 km NE from Ny-Ålesund. The bottom was not reached and it is likely that the ice at the drill site is close to 200 m deep as was suggested by the radar measurements. The core is estimated to cover the last 400 years and will be used for climate and pollution studies by a large group of collaborators.

SnowTerm: a cryosphere environment terminology database

By Plini P.¹, Salvatori R.², Valt M.³, De Santis V.¹

In 2003, a research project was presented at the Ny-Ålesund Science Managers Committee (NySMAC). The project title was "PolarTerm – A Terminological Reference System as a Support to Polar Research Activities" and it was published both on the 12th Edition of the Ny-Ålesund Newsletter in

June 2003 (<http://npolar.no/nysmac/Newsletter-12-Ed.htm>) and on the Polarnet Technical Report 1/2003 (<http://www.polarnet.cnr.it/PTR/PDF/PTR1-2003.pdf>). The idea of the project came out during a spectroradiometric field survey carried out in Spitzbergen in May 2003.

The project purpose is to develop a reference multilingual scientific and technical vocabulary, covering the terminology used for the Svalbard research activities and potentially applicable to the northern and southern polar sector. The methodology should include the identification, acquisition and harmonisation of controlled multilingual terminologies and the development of a complete basic reference list of terms in English, partially multilingual, in order to take into account the different linguistic expressions used within the same language for the representation of equivalent concepts.

While analyzing and organising the results of the field survey, it came out a lack of structured terminology in the domain of the cryosphere environment. Thus, in order to start the terminological activities related to the PolarTerm project, in the second half of 2003 we started with the identification of the potential sources of terminology over the Internet also with the assistance of experts of the Arappa Avalanche Centre (http://www.arpa.veneto.it/csvdi/w_csvdi/csvdi_en.htm). The result is represented by a certain number of lists of terms, usually contained in glossaries where they are endowed with one or more definitions and scarcely organised within a structure. In certain cases they are clustered in thematic areas. The terms of these lists were selected according to their pertinence and relevance.

At present we are working on a database of around 2.500 terms. The thematic areas, covered at present, deal with snow and ice physics, snow and ice morphology, snow and ice radiometry, remote sensing and GIS in cryosphere environment, sea ice, avalanches, glaciers. Concerning the vertical structure we adopted the Classification Scheme already in use for the development of the CNR EARTH Thesaurus (<http://uta.ia.cnr.it/earth.htm>). The hierarchical setup is based on facets; according to its intrinsic features, the structure can be used as a semantic reference system, stable and partially independent from the context.

Since the facet structure tends to scatter the terms under the more general referral category, we are implementing a thematic structure that will cluster the terms in themes representing specific sectors; The possibility of applying different thematic schemes could allow the exploration of concepts according to different perspectives, which may emphasize particular and contingent aspects.

It is expected to present the results of this work during 2005. The material will also be made available on the Internet as a subset of the EARTH web pages.

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Calendar of Arctic Meetings

Arctic Science Summit Week ASSW 2006

Potsdam, Germany
End of March 2006.
Dates will be announced later.

For a comprehensive list of published meetings, look at **SAM** (Survey of Arctic Meetings) on the IASC home page:
<http://www.iasc.no/>

Staff News

AWI & IPEV Joint French-German Arctic Research Platform

The head of the Joint French-German Arctic Research Base is now **Dr. Anne Hormes**, who took over from **Thorsten Wilhelm** on 14. April 2005

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