

Friday, October 26, 2012

No. 10 Week no. 43

Bjerknes Centre for Climate Research

Allégaten 55, 5007 Bergen

DIRECTOR'S NOTE

What's cooking?



New perspectives abroad and at home

This column is written from Beijing where I have attended the annual meeting of the Nansen-Zhu Centre (NZC), where three of the Bjerknes Centre institutions are partners (NERSC, UiB and Uni). In addition, Yongqi, Tore and Nils Gunnar represented the Bjerknes Community. Many young scientists and students from NZC who have visited us were also there. The grand hospitality, great food and good company that always accompanies these occasions makes these visits very enjoyable.

Yet it is the scientific progress and excellence of the NZC that is most impressive, stimulating and inspiring. Having followed the development for some years it is clear that the NZC is becoming more and more a sizeable power in climate research. There are in place good scientific connections between Bergen and Beijing, and more papers are co-authored between our groups and the NZC scientists. But more could be done and more people could be involved. The NZC has a large pool of excellent students, they have high expertise in many aspects of climate modeling and model

analysis, from global to regional, past, present and future, including downscaling with WRF and predictions on various time scales.

Many new and exciting results were presented to us during the two days we were together. Through the DecCen project which is carried out jointly between BCCR and NZC many new connections and collaborations have been initiated. We should extend from this good experience and build collaboration with NZC into new proposals to be submitted to the upcoming Research Council call. I am sure it will benefit us both in terms of improving the proposals, their chance to get funded and of course the science in them. I will try to organise an activity to develop these ties in good time before the call comes out.

Speaking about the call – it now seems that a large call for projects in climate system science will be launched next spring. Discuss ideas now and let them mature in the meantime. Many good proposals were submitted for the recent polar science call, and I am sure some of them could also be rehashed into good proposals for the new call.

Lastly – on the home front: The UiB board has decided on the 2013 budget. In this is the intial money to start refurbishing the west wing of Geofysen for the climate community. Finally things are moving on that front

Eystein

CRUISING EAST GREENLAND'S FROZEN COAST

In August, four scientists and a journalist from Bergen embarked on a research cruise on board the British Antarctic Survey's icebreaker James Clark Ross in the East Greenland Current (EGC). Everybody who joined the recent GFI getaway in Voss has heard about this cruise, because two almost identical pictures from this cruise made it to the top five photos in the GFI photo contest: a breaking atmospheric wave off the coast of Jan Mayen. While this was seemingly the most photogenic event of the cruise (polar bears, whales and dolphins, icebergs, CTDs, and the coast of Greenland surprisingly did not get as many votes as those internal waves), the main focus of the cruise was below the water level.

The first high-resolution hydrographic/velocity survey of the EGC between the Denmark Strait and the Fram Strait consisting of 300 stations over 11 sections was obtained, resulting in a very interesting data set that will provide information about freshwater and overflow water transports along the continental slope of Greenland. Hydrography and velocity measurements were complemented by oxygen isotope, nutrient and dissolved oxygen measurements to disentangle the source waters of the EGC.

Dissolved oxygen was measured using an oxygen titrator kindly provided by the Bjerknes Centre and provided extra excitement – a vital part was, despite



prior testing at home, not functioning on board and had to be re-ordered via satellite telephone and then express-shipped to Iceland. Fortunately it arrived onboard in time to fix the instrument and obtain a number of high-quality samples.

Additionally, an impressive number of mooring evolutions were done during the first 10 days of the cruise, most of which took place during the service of a mooring array between Iceland and Greenland north of the Denmark Strait. All 12 moorings were successfully recovered with minimal loss of instruments and data, resulting in a data set expected to produce a wealth of information about the sources and pathways of overflow water into the Denmark Strait.

For more posts, beautiful pictures and nice videos, check out the cruise's website (http://www.greenlandsfrozencoast.com/) and Sindre Skrede's blog: http://www.forskning.no/blog/sindreskrede/33236.

Mirjam S. Glessmer and Kjetil Våge



GLACINDIA - A NEW COOPERATION PROJECT

Atle Nesje's project Glacindia is approved! On Wednesday, Atle Nesje and Birgit Falch were overheard saying "Yes! Yes! Yes!" in the corridor at the 4th floor of Allegaten 55. They received a note from NFR that the application GLACINDIA went through. Birgit and Atle worked hard on the application for NFR's program JOINTINDIA this spring. The program is a bilateral cooperation between Norway and India, and the applications have been evaluated both in India and Norway. The program received 20 applications, and GLACINDIA is one and the two that went through!



Photo: Carsten Nebel, Wikimedia Commons

 I had a good feeling on this application, it was really well worked through, a happy Atle Nesje says.

The full project title is "Water related effects of changes in glacier mass balance and river runoff in western Himalaya, India: past, present and future (GLACINDIA)". (GLACINDIA). Citing from the application: The primary objective is to produce updated and scientifically robust data on water related effects of changes in mass balance of glaciers and river runoff, aiming at reducing uncertainties in one region of Western Himalaya by a combination of field data and measurements coupled with climate downscaling and modelling of glacier mass balance and model experiments at two glaciers (Chhota Shigri and Patsio glaciers) in NW Himalaya, India.

The project partners are: Uni and UiB: UiO, Dept. of Geoscience: NCAR, Boulder, USA: Jawaharlal Nehru University, New Dehli, India: TERI, New Dehli, India: CSC (German Climate Service Center): and Institut de Recherche pour le Dévelopement, France. Read more at NFR:

 $http://www.forskningsradet.no/prognett-miljo2015/Nyheter/To_norskindiske_soknader_erbrinnvilget_stotte/1253981167527/p1224697848203$

Gudrun Sylte

CHASING ICE AND RISING SEA LEVEL



Helge Drange, Friedrike Hoffman and Lars Henrik Smedsrud (photo, left) have this autumn prepared school tasks for high schools in Bergen in cooperation with the Bergen International Film Festival (BIFF) and their program on climate films. Last Friday Helge, Friedrike and Lars Henrik met the pupils in a crowded KP1 cinema, where they were answering questions after the bright youngsters had seen the film "Chasing Ice".

Also last week Jan Even Øie Nilsen (photo, right) presented the new report on rising sea level at Bergen Kommunes conference on Climate and Human Rights.

Photos and text: Gudrun Sylte



A NEW CLIMATE MAGAZINE FOR STAKEHOLDERS AND THE PUBLIC

As you might have heard, BCCR is cooperating with Norsk Klimastiftelse on a new climate communication project. This will result in an annual magazine and a website, named 2°C, with issues in Norwegian and English. Norsk Klimastiftelse is the publisher, and has raised funds to establish the publication, from public and private sources. This autumn, 2°C was approved as a commitment by Clinton Global Initiative! Among the sponsors is The Ministry of the Environment. UiB has agreed to buy the magazine to distribute to contacts and partners.

BCCR is responsible for the climate information and knowledge elements in this project. Fifteen BCCR (related) researchers from all four partners are involved in writing the various articles in the magazine: Helge, Eystein, Tore, Odd Helge, Lars Henrik, Kristin, Svetlana, Asgeir, Jan Even, Caroline, Jerry, Randi, Kjell Arne and Øyvind (Bergh).

We aim to make this magazine and website a reference document for opinion makers such as politicians, leaders in the private sector, journalists, and NGOs to support their needs for precise climate information. The Norwegian version of the magazine will be launched November 19, and will be presented by Kikki at the Zero Conference in Oslo. The English version and the web edition will be ready later this year, at 'tograder.no' and 'twodegrees.org'.

Gudrun Sylte and Eystein Jansen

VISITING PALAEOECOLOGIST FROM THE AMERICAN WEST

Professor Peter Mehringer has become an honorary member of the UiB Biology Department. He will be visiting BIO next week from Wednesday 30 October to Friday 2 November. He is palaeoecologist and geologist with special interests in changes in vegetation and plant distributions in response to climate changes and how these climate and vegetational changes have then affected human populations in the past (ecological archaeology). He has done most of his research in western USA, particularly Washington and Oregon, where he has used tephras as dating markers in the Cascades. He has recently moved his attention to the highlands of Honduras where tephras are also abundant and the geology includes limestones and volcanic rocks. Read more about Pete here: http://libarts.wsu.edu/anthro/Faculty/mehringer.html

He will give us a lecture about his research in Honduras: **Date and time:** Friday, November 2, 12.30–13.15 **Place:** Seminar room 4th floor, north end of BIO A-Blokk.

Speaker: Peter Mehringer

Title: Secrets of the past from the Lake of Creation: Lago de Yojoa, Honduras.

If anyone is particularly interested to meet Pete and discuss palaeoecology, biogeography, and human ecology with him, please let Hilary Birks know (hilary.birks@bio.uib.no)

Hilary Birks

BJERKNES - GFI COLLOQUIUM

The Bjerknes – GFI colloquium, which takes place every Monday at 11:15 in the GFI East wing auditorium, is a weekly forum for the presentation of research at BCCR and GFI. The seminar format has 45-min. talks with 15 min. for questions. A few of these slots will be reserved for visitors like the invited lecturers, but the majority is meant for Bjerknes folk. The organizers are Jenny Ullgren (jenny.ullgren@gfi.uib.no) and Mirjam Glessmer (Mirjam.Glessmer@gfi.uib.no).

The next scheduled colloquium is:

October 29, 11:15–12:00, GFI east wing auditorium

Speaker: Torben Kunz

Title: On the northern annular mode surface signal associated with stratospheric variability

NERSC SEMINARS

A list of the Nansen Center in-house seminars can be found at: http://seminars.nersc.no/

PUBLICATION

Heggen, H. P., **Svendsen, John Inge, Mangerud, Jan, Lohne, Øystein S.** (2012): A new palaeoenvironmental model for the evolution of the Byzovaya Palaeolithic site, Northern Russia. *Boreas* 41, 527-545. http://onlinelibrary.wiley.com/doi/10.1111/j.1502-3885.2012.00259.x/full

PRESENTATIONS

Lørentzen, Torbjørn (2012): Klimaendring og effekt på norsk fiskeri og oppdrett, CODAN-forsikringsselskap, Bergen, 25 October 2012.

Mangerud, Jan (2012): Vulkansk aske over Norge–det har hendt før og det kommer igjen. Senioruniversitetet, Konsertpaleet, Bergen, 10 October 2012.

Mesquita, Michel d.S. (2012): Eleven (11) lectures on advanced data analysis and modelling in climate sciences, in New Delhi, India and Hanoi, Vietnam. 27 September – 10 October 2012.

BJERKNES IN THE NEWS

Statoil misforstår togradersmålet Dag og Tid, 26.10.2012, Helge Drange

http://www.bjerknes.uib.no/pages.asp?id=2095&kat=113&lang=1

Kald vind gjør Norskehavet varmt

Tvedestrandsposten (papir), 25.10.2012, Iselin Medhaug

Rekordvarm september

Aftenposten, 25.10.2012, Trond Dokken http://www.aftenposten.no/klima/Aldri-har-det-vart-malt-envarmere-september-7025844.html

Så mye kan vannet stige

bt.no, 18.10.2012

http://www.bt.no/nyheter/lokalt/Sa-mye-kan-vannet-stige-2782556.html

Briksdalsbreen tilbake 534 meter

NRK Sogn og Fjordane, 16.10.2012, Atle Nesje

http://www.nrk.no/nyheter/distrikt/nrk_sogn_og_fjordane/1.8 360158

Briksdalsbreen tilbake 534 meter på 16 år

Fjordingen (papir), 15.10.2012, Atle Nesje

Briksdalsbreen har gått 534 meter tilbake sidan 1996

bt.no, 16.10.2012, Atle Nesje

http://www.bt.no/nyheter/lokalt/Briksdalsbreen-har-gatt-534-meter-tilbake

Kald vind gjør Norskehavet varmt

Forskning.no, 09.10.2012, Iselin Medhaug

http://www.forskning.no/artikler/2012/juni/325254

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Unsure of who should be sent what? Send an email for all registering of lectures, posters, final publications, meetings, and other tips to post@bjerknes.uib.no. These will find their way to the right person.

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Please remember to send an email about your media and outreach activity to Gudrun (gudrun.sylte@uni.no). If possible, send a direct link to the article or program (or pdf file, mp3 file or the like). If the article is not published online you can login to A-tekst (a digital news archive) via UB at: http://www.retriever-info.com/services/archive.html or you can buy a copy of the paper for only 12 NOK at: https://www.buyandread.com/mediaport/index.htm.

UPCOMING EVENTS

AGU 45th annual Fall Meeting

December 3–7, 2012 in San Francisco, California. More information: http://fallmeeting.agu.org/2012/

Bjerknes Getaway 2013

January 21-23, 2013 in Geilo

Arctic Frontiers: Geopolitics and Marine Production in a Changing Arctic

January 20-25, 2013 in Tromsø

More information: http://www.arcticfrontiers.com/

Third PAGES Open Science Meeting: The Past - A Compass for Future Earth

February 13-16, 2013 in Goa (India)

More information: http://www.pages-osm.org/

WGOMD/SOP Workshop on Sea Level Rise, Ocean/Ice Shelf Interactions and Ice Sheets

February 18-20, 2013 in Hobart, Tasmania

More information: http://www.clivar.org/organization/wgomd/sealevel

European Geosciences Union EGU General Assembly 2013

April 07–12, 2013 in Vienna, Austria More information: http://www.egu2013.eu/

International Conference on Arctic Ocean Acidification

May 6-8, 2013 in Bergen

More information: http://amap.no/MiscTempFiles/AOAConferenceFlyerFinal.pdf

45th International Liege Colloquium on Ocean Dynamics

The variability of primary production in the ocean: from the synoptic to the global scale, May 13–17, 2013 in Liege, Belgium

More information: http://modb.oce.ulg.ac.be/colloquium/

2nd International Conference - Energy & Meteorology

Weather and Climate for the Energy Industry, June 25–28 2013 in Toulouse, France Abstract deadline, December 20, 2012. More information: http://icem2011.org

CALL FOR PROPOSALS

NFR: Polarforskningssamarbeid mellom Norge og USA i Arktis, og mellom Norge og Russland på Svalbard

Deadline: November 28, 2012.

http://www.forskningsradet.no/no/Utlysning/Polres/1253981036148/p1173268235938?progId=1145984551576&visAktive=true