

# ARCTIC CENTRE

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ANNUAL REPORT 2013

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[WWW.ARCTICCENTRE.ORG](http://WWW.ARCTICCENTRE.ORG)

# ARCTIC CENTRE ANNUAL REPORT 2013

**"Decision making plays  
a key role in the Arctic"**

Director Paula Kankaanpää at  
the National Geographic's Great Energy Challenge  
event in London, September 2013

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EXPERT MEMBERSHIPS





## FROM THE DIRECTOR

A major recognition for the Arctic Centre's excellence in 2013 was written in the new Arctic Strategy of Finland, where Finnish government stated that it will

*"Make nationwide use of science communications and the exhibition activities of the Arctic Centre to improve the visibility of Finland's Arctic expertise and access to information on the Arctic and support the role of the Arctic Centre as a provider of multi-disciplinary research data on the Arctic region."*

As a milestone to act such a Arctic Window for Finland, the Arctic Centre organized together with the City of Rovaniemi a high-level international conference "In the spirit of Rovaniemi" process in December where Prime Minister of Finland Jyrki Katainen give his Arctic speech. The event also marked the role of Rovaniemi in launching arctic policies and processes since the very beginning of international arctic co-operation. The next conference will be held in the end of November 2015 about the Arctic and EU, while the process will be culminated in the 100 anniversary of Finland when Finland will receive the chairmanship of the Arctic Council in 2017.

One of the important tasks of the Arctic Centre is to implement the strategic profile of the University of Lapland, which is focused on "research about Northern

communities, environment and their interaction." We established a common research professor on anthropology with the Faculty of Social Sciences, we had a common university lecturer for exhibition design together with Faculty of Art and Design, we ran the masters program on polar law together with the Faculty of Law, we started planning a common projects together with Faculty of Education and we served as co-editors for the university's magazine Kide together with its communication unit. Furthermore, the Arctic Centre led two thematic networks, namely arctic extractive industries and sacred sites, for the international organization of the University of Arctic, which is the main strategic international partner of the University of Lapland.

The Arctic Centre is proud and honored about its new scientific advisory board, which was nominated in summer. Its members represent the world glass leading experts about the Arctic.

The main project led by the Arctic Centre in 2013 was the "Strategic Impact Assessment of development in the European Arctic" which was funded by the European Commission and which was participated by 18 top Arctic research institutions in Europe. There the Arctic Centre used its asset, the arctic location, and its capacity to engage local and regional stakeholders into dialogue with scientists and experts about the Arctic.

The other landmark of the year was when the Arctic Centre joined as the Finnish partner to the China-Nordic Arctic Research Centre, which is lead by Polar Research Institute of China. This co-operation aims at exchange of researchers and information about the Arctic.

In the Barents region the Arctic Centre has been an active actor since the 90's. In 2013 the Arctic Centre hosted Barents 20th Anniversary symposium, together with Norwegian embassy in Finland. Barents Mediasphere project, Barents Studies project and Lenin Ice breaker project all work cross borders to share information about and in the region.

Indeed, the Arctic Centre was major and long-term investment for arctic expertise of Finland when it was established for 25 years ago and when the Arktikum -house was built solemnly for its needs. Together with Regional Museum of Lapland, which is also located in Arktikum -house, we presented the Circumpolar Arctic, Finnish Arctic expertise and Lapland for almost 73 000 visitors from Finland and abroad. . Recently, also many ambassadors and other high-level guests of Finnish government have specifically come to visit the Arctic Centre to discuss about topical arctic matters with us.

The Arctic Centre was successful with externally funded projects which cover more than half of its total operating expenses budget. This enabled us to reach back to about 60 people working at the Arctic Centre. The great

working community and interestedand highly professional staff consisting of people with personal passion towards Arctic has made the atmosphere of the Arctic Centre as unique as it is. Our fame as a center of excellences has spread and we have managed to attract top Arctic scientists from all over the world even from 15 different countries. And, we welcome new experts to join the staff of the Arctic Centre also in future!

These all are the trends that we want to follow also in the coming years.



**Paula Kankaanpää**  
Director, Arctic Centre

**ARCTIC RESEARCH,  
INFORMATION AND EXPERIENCES**

●  
**OVER 25 YEARS FOR SUSTAINABLE  
FUTURE OF THE ARCTIC**

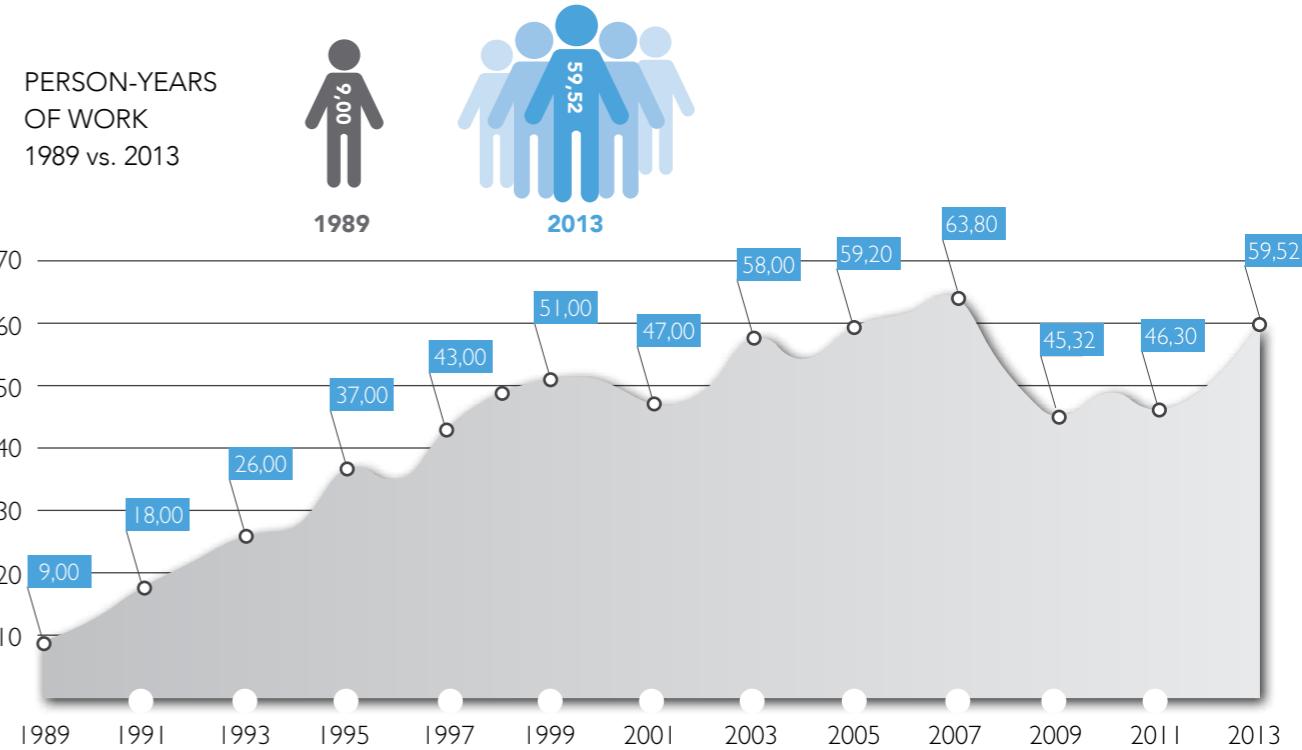
●  
**ARCTIC CENTRE AT THE  
UNIVERSITY OF LAPLAND  
ROVANIEMI, FINLAND**

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FACTS & FIGURES

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## NUMBER OF PERSONNEL FULL-TIME EQUIVALENT

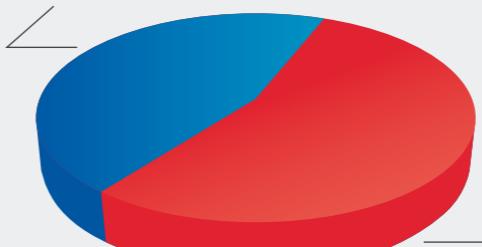


## BUDGET OPERATING EXPENSES

**TOTAL** 4 039 534 €

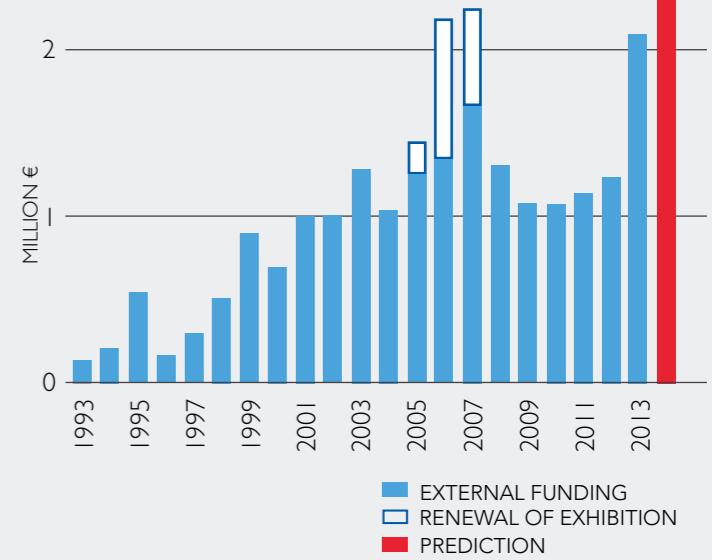
**BASIC BUDGET**

1 842 644 €



**REAL ESTATE AND  
OTHER COSTS**  
1 573 233 €

## ARCTIC CENTRE EXTERNAL FUNDING 1993-2012



# THE ARCTIC CENTRE SCIENTIFIC ADVISORY BOARD

## 1. OCTOBER 2013 – 31. SEPTEMBER 2016

The Arctic Centre got a new scientific advisory board in autumn 2013. The scientific advisory board meets once a year and it has an advisory and supervisory role which includes the following tasks:

- The Board supports the leadership of the Arctic Centre by giving advice for research planning, science education, data management, communication and outreach.
- The Board advises on implementation of the Arctic Centre Strategy for 2020 that has been adopted in the autumn of 2008. The Board assesses whether the benchmarks set out in the Strategy are being achieved.
- The Board gives advice for evaluation the quality of the work of the Arctic Centre.
- The Board supports Arctic Centre's national and international co-operation and networking with scientific partners as well as public and private sectors.
- The Board supports the Arctic Centre in gaining external funding by giving advice and status for the Arctic Centre.



**Dr. David Hik**

Professor in Department of Biological Sciences  
University of Alberta

Dr. David Hik is the Chairman of the Scientific Advisory Board for the Arctic Centre at the University of Lapland. He works as a Professor in the Department of Biological Sciences at the University of Alberta

Dr. Hik has conducted research in Northern Canada since 1984. His interests are focused on the ecology of tundra ecosystems, particularly interactions between plants and animals in a rapidly warming climate. Students in his laboratory are currently working in Yukon and on Svalbard, Norway. Prior to moving to the University of Alberta in 1999, Dr. Hik was Assistant Professor at the University of Toronto where he chaired the Arctic Working Group.



**Prof. Betsy Baker**

Vermont Law School  
Associate Professor; Senior Fellow  
for Oceans and Energy at Institute for Energy and the Environment.

Professor Baker is on leave for 2012-2013 as a visiting scholar with the Extended Continental Shelf Task Force in Washington, D.C. She is working with the inter-agency task force from the U.S. State Department in the Office of Ocean and Polar Affairs, which chairs the task force and is part of the Bureau of Oceans and International Environmental and Scientific Affairs.

## TIMELINE 2013

### MATKOJA TUONPUOLEISIIN – VOYAGES BEYOND

*Voyages Beyond exhibition, based on the field work done by Professor Juha Penttinen revealed the power of shamanhood to take the visitor on voyages beyond – and back. The exhibition was part of the Arktikum 20th Anniversary Celebrations.*



JAN  
5



**Dr. Else Grete Broderstad**

Director of Center of Sami Studies in the University of Tromsø.



**Professor Nikolay Vakhtin**

Arctic Studies in St Petersburg European University



**Mr. Eric Hussonot,**

Director of Océanopolis



**Mr. Guy Lindstrom**

Deputy Director of the International Department of the Finnish Parliament.

His main responsibilities include Arctic cooperation, Asia - Europe cooperation, and relations with the World Bank.

Mr. Lindstrom has a long career in international relations, spanning work for the Parliament, the Nordic Council, as well as the Ministry for Foreign Affairs. He has been engaged in Arctic policy since 1992. He was originally tasked with setting up the Conference of Parliamentarians of the Arctic Region (CPAR, Arctic Parliamentarians), and then, from 1994 until 2002, served as the first Secretary General of this body representing the parliaments of the Arctic Council member states and the European Parliament.



**Dr. Oran Young**

University of California, Bren School of Environmental Science & Management, Professor Emeritus – Institutional and International Governance, Environmental Institutions.

### PUBLIC HEARING ON EU ARCTIC POLICY

*European Economic and Social Committee (EESC) organized together with the Arctic Centre at the University of Lapland a public hearing on EU Arctic Policy to address globally emerging interests in the region – a view of civil society. The speakers represented EESC, EU Parliament and Commission, the Arctic Council, local stakeholders and Arctic research.*



JAN  
31

# STRONG COOPERATION WITH RUSSIAN PARTNERS

For 15 years already, Russian Arctic experts have been important collaborators with the Arctic Centre. Russia is the largest of the Arctic states, and it has top expertise about the Arctic. Many phenomena on which the Arctic Centre research is focusing on concern both Russia and its neighboring Lapland where the Arctic Centre is located. "I am happy that today all Arctic Centre's research groups as well as exhibition and science communication units have ongoing projects with Russian partners. One can even say that the Arctic Centre is bridging Western and Eastern research traditions in the Arctic" comments Paula Kankaanpää, the Director of the Arctic Centre.

Research professor Monica Tennberg is leading the **Sustainable development research group** and **Northern political economy research team**. She emphasizes the importance of Russian partners to conduct research in Barents Region. The main Russian partner is Luzin institute of Economic Studies. Her group is currently launching a new academic journal Barents Studies together with Russian and Norwegian partners. Research project ARCSUS (2012–2015) studies urban sustainability in the Russian Arctic and NEO-BEAR (2012–2013) has focused on neoliberal governance and sustainable development in the Barents Euro-Arctic Region. In the future, the team hopes to have more cooperation with NArFU, Northern Arctic Federal University in Arkhangelsk.

Many of the **anthropology research team**'s members have a strong background in Russian Northern Studies and decade-long fieldwork experience in the Russian North. The field sites are in the Murmansk region, Nenets Autonomous Okrug, Yamal-Nenets Autonomous Okrug, Khanty-Mansiiskii Autonomous Okrug, and Sakha/Yakutia. Anthropologists have studied the diversity of reindeer herding livelihoods, nomadism, indigenous knowledge,

economy, resource extraction, industrial migration, and sense of place. The team has close relations with several Russian colleagues in European University, Russian Academy of Sciences, Herzen State Pedagogic University, Arctic Research Centre, Yamalo-Nenets Regional Museum, Institute for Ob Ugrian applied research, North Eastern Federal University, Arctic State Institute of Art and Culture, Laboratory "Barsovaya Gora", Arctic Federal University and Moscow State University.

The anthropology team is coordinated by Research Professor Florian Stammmer. The team is currently working on an aspiring project ORHELIA (2011–2015) which focuses on oral history of empires by indigenous elders. Research methods include life history analysis and oral history fieldwork combined with anthropological participant observation. In ACCESS project (2011–2015) team cooperates with Russian partner Marine Informatics Company to examine Arctic fisheries, aquaculture and livelihoods in the context of climate change.

The **Global change research group** has a joint research project with the social anthropology team: RISES (2012–2016), Resilience in social-ecological systems of northwest Eurasia. The project aims to link indigenous – Sámi and Nenets – oral histories with archaeology, paleoecology and modern ecological and climate studies for a holistic explanation of stable states. The main Russian partner is the Arctic Research Centre of Yamal in Salekhard, which conducts archaeological fieldwork on Yamal Peninsula in West Siberia. The Global change research group is also a partner in a NASA-funded synthesis of space-based technologies and models to address land use changes on the Yamal Peninsula. The main Russian partner is the Earth Cryosphere Institute at the Russian Academy of Sciences in Moscow. Research professor Bruce Forbes says that these partnerships

## SYMPOSIUM ON BARENTS REGIONAL COOPERATION: FIRST 20 YEARS

The Arctic Centre of University of Lapland and the Norwegian embassy in Finland organized jointly a symposium in Arktikum to discuss the past, present and future of the Barents cooperation.

FEB  
12

FEB  
18-24

## STRONG COOPERATION WITH RUSSIAN PARTNERS

have proven extremely productive to date in terms of international collaboration, understanding decadal changes in Arctic social-ecological systems, and training of early career researchers. According to him, there is little doubt that the partnerships will continue to add value via synergies from the individual efforts of all concerned.

The **Northern Institute for Environmental and Minority Law** is led by Research Professor Timo Koivurova. The institute is currently testing improvement processes of Finnish environmental impact assessment (EIA) and the modes for application in Arctic Regions of Finland and Russia (2013–2014). The aim is to provide Finnish companies with EIA best practices and free access to an online information service that includes information about environmental legislation and process in Russia, along with contacts within the process to decrease the EIA market entry barrier into northwestern Russia as well as to enhance high environmental standards and business opportunities in these countries. The project is cooperating with Environmental Law Center in Arkhangelsk.

The Arctic Centre has two outreach units: science communications and Arktikum Science Centre. The **Arktikum Science Centre** is leading a transformation

of the first nuclear icebreaker Lenin into a science centre together with the partners Atomflot, Russia, and Polaria, Norway. The project Arctic Expo Centre – Nuclear-Powered Icebreaker Lenin – ICE (2012–2014) enables the partners to share expertise and exhibition elements on the Arctic issues. Chief Executive Producer Nicolas Gunsley tells that as a follow up of the project, the partners aim at forming a network of experts in popularizing arctic research through exhibitions and in developing innovative tools for informal learning environment as well as enhancing services to tourist industries and local population.

**The science communications** is leading Barents Mediasphere project (2012–2014) with TV Murman, Russia, and Barents Observer, Norway. Head of Science Communications Markku Heikkilä emphasizes the significance of regional cooperation in the North. Barents Mediasphere is a major effort to promote cross border information and contacts between media professionals. Already hundreds of journalists have taken part to the project activities, and many of them have been able to get personal contacts and first hand experiences over borders. In the future, the science communications plan to continue cooperation with Russian partners related to Barents information and communication activities.





In 2013 Arctic Centre has been cooperating closely with University of Alaska, Fairbanks (UAF). Bruce Forbes and Gary Kofinas (UAF) are lead authors of the chapter on Resource Governance in the Arctic Human Development Report II. In terms of research collaboration, **Bruce Forbes** is participating in a third consecutive project since 2007 led by Skip Walker (UAF), funded by NASA's Land Cover Land Use Change Program.



ESA SPACE  
WEATHER  
EVENT WITH  
SODANKYLÄ  
GEOPHYSICAL  
OBSERVATORY

LES FEUX ARCTIQUES –SEMINAR  
IN ARKTIKUM BY THE FACULTY  
OF ART AND DESIGN

ITALIAN-FINNISH ARCTIC SEMINAR  
*Italian and Finnish Arctic experts, researchers and business representatives meet together in Rovaniemi on Tuesday, March 12, in a seminar "Italian-Finnish Cooperation in the Arctic Region: A Great Opportunity".*

MAR  
3

MAR  
4-6

MAR  
12

MAR  
13

## PREPARATORY PROJECT FOR THE EU ARCTIC INFORMATION CENTRE

In the end of 2012, the European Commission announced that it has selected a consortium, led by the Arctic Centre, University of Lapland, to carry out a one million euro and 18 months project to produce a **"Strategic Environmental Impact Assessment of development of the Arctic"**. The work was launched in the very beginning of the year 2013 when the consortium known as "the EU Arctic Information Centre Initiative" had its kick-off meeting in Rovaniemi. This consortium comprises an international network of 19 leading Arctic research and outreach institutions from the various European Union member states, and the EEA countries.

The basic idea in the EU Arctic Information Centre is (i) better access to Arctic information and its use more efficient utilization in the EU, (ii) facilitation of dialogues regarding Arctic information and (iii) outreach and communication. Co-production of knowledge through science-policy interaction is seen as a necessary element to fully comprehend the impact of the EU policies on the future of the Arctic region. The increasing awareness, understanding and knowledge about the Arctic and its changing political, socio-economic and environmental landscape would require policy-makers to participate in and benefit from multidimensional dialogue and information exchange between the EU, science and civil society.

### *Tasks for the Strategic assessment of development of the Arctic*

In order to test this approach and the operation of the Network, the project was tasked to carry out an extensive Strategic assessment of development of the Arctic. It was decided to be focused on seven main development trends in the European Arctic that are climate change, maritime transport, fisheries, oil and gas resources, land use, mining and cultural changes in the European Arctic.

The other tasks that were requested were: (i) an Assessment in policy making: case studies from the Arctic Council, which aimed to present tools for increasing the quality of decisions and policies regarding the Arctic, and to describe cases from the Arctic Council. (ii) European Arctic Initiatives Compendium to serve as an inventory of current initiatives, projects and policies of significance to

the Arctic. (iii) Gap analysis to define what policy-makers need to know about the Arctic, where that information is, and how it can be made available. (iv) Network feasibility analysis to present potential services and products provided for the use of the European Union by the EU Arctic Information Centre.

### *Hands full of work*

After the launch work with overall planning, deciding on methods and fact sheets, identification of stakeholders and other elements started and finally the first of the two stakeholder meetings was successfully arranged in the Arctic Centre at the Arktikum House in Rovaniemi with about 120 participants. The next consultation was planned to be held in Tromsø in the following January. The preparatory project became the first concrete activity for this network.

### *First initiative for the EU Arctic Information Centre 2009*

The possibility of the EU Arctic Information Centre had been expressed in all official Arctic documents of the EU Commission, Council and Parliament Arctic papers since 2008. The Arctic Centre at the University of Lapland made a concrete initiative of the network model in 2009. The Preparatory Action became possible through help from the European Parliament. The project was seen as a way to test the EU AIC network in practice by implementing one of the planned activities. It was understood as the first step to strengthen communication and outreach within the EU and between the EU and the Arctic community about the contribution the EU is making to address environmental and other issues raised by the rapid climate change and economic development in the Arctic region.

At the end of the year 2013 the project was going on with full steam with the aim of having everything ready and delivered to the Commission by the summer of 2014. No official decisions about the possible EU Arctic Information Centre were expected before the end of the preparatory action in autumn 2014. Positive commitment of the Network partners for the common effort was striking and the work was all done as planned and in timeline. Also the idea was shown to be feasible.

# ARCTIC CENTRE PROJECTS 2013

## SCIENCE CENTRE PROJECTS

**Arctic Expo Centre – Nuclear-Powered Icebreaker Lenin – ICE** / Nicolas Gunslay / EU Kolarctic ENPI, lead partner / 3.5.2012 – 2.5.2014

**Natural Europe** / Nicolas Gunslay / EU-FP7, partner / 1.10.2010 – 31.10.2013

**Places** / Nicolas Gunslay / Ecsite / 2012 – 2014

**Tiedematkailu ja palvelumuotoilu** / Nicolas Gunslay / EAKR Lapin liitto / 1.1.2013 – 31.12.2014

**Interaktiv Visualisering** / Nicolas Gunslay / Interreg IV A Nord / 1.4.2013 – 30.6.2014

## RESEARCH PROJECTS

*Global Change Research Group*

**RISES - Resilience in Social-Ecological Systems in Northwest Eurasia** / Bruce Forbes / Academy of Finland / 1.9.2012 – 31.8.2016

**Adaptation to Rapid Land-Use and Climate Changes on the Yamal Peninsula, Russia: Remote Sensing and Models for Analyzing Cumulative Effects** / Bruce Forbes / University of Alaska Fairbanks / 1.6.2009 – 31.3.2013

**TUNDRA - How to Preserve the Tundra in a Warming Climate** / Bruce Forbes / NordForsk, Nordic Centre of Excellence / 1.1.2011 – 31.12.2015

**LapLinko – Lapin lintukohteet** / Jukka Jokimäki / EAKR- Lapin ELY-keskus / 1.4.2012 – 30.6.2014

**Rovaniemen osayleiskaavan täydentävä linnustokartoitus (Ounasvaara)** / Jukka Jokimäki / Rovaniemen kaupunki / 14.6.2013 – 31.12.2013

**SVALI - Stability and Variations of Arctic Land Ice** / John Moore / NordForsk, Nordic Centre of Excellence / 1.1.2010 – 31.10.2015

**Poroaitojen riistaturvallisuus** / Osmo Rätti / EAKR Lapin Ely-keskus, Metsähallitus, RKTL ja Lapin yliopisto, Arktinen keskus / 20.9.2013 – 30.4.2015

**Lämmönsäätyelyvasteet ja turvallisuus poromatkailuyrittäjien tuottamissa ohjelmapalveluissa** / Päivi Soppela / Maa- ja metsätalousministeriö / 1.1.2012 – 31.3.2014

**Reindeer Grazing and Tundra Soil Carbon Storage under Changing Climate** / Sari Stark / Academy of Finland / 1.5.2012 – 31.7.2014

**Laidunnuksen ja ilmastonmuutoksen yhteisvaikutukset subarktisen ekosysteemin hiilivarastoihin** / Sari Stark / Maj ja Tor Nessling säätiö / 1.1.2013 – 31.12.2015

*Sustainable Development Research Group*

**Ekologinen perinnetieto Suomen Saamelaisalueella. Perinteisen tietotaidon kestävä käyttö ja innovatiiviset sovellukset** / Elina Helander-Renvall / EAKR Lapin liitto / 1.1.2014 – 30.4.2015

**ACCESS – Arctic Climate Change, Economy and Society** / Anna Stammler-Gossman / EU-FP7 / 1.3.2011 – 28.2.2015

**POLARIS** / Florian Stammer / EU – Marie Curie – Université de Versailles Saint-Quentin-En Yvelines / 1.3.2013 – 28.2.2017

**ORHELIA – Oral History of Empires by Elders in the Arctic** / Florian Stammler / Academy of Finland / 1.9.2011 – 31.8.2015

**Biomedical and ethnographic aspects of Arctic human breastfeeding: a literature review** / Florian Stammler / Milupa GmbH / 23.11.2012 – 28.2.2013

**KEMU - Kestävä maahanmuuttajaryttäjys** / Monica Tennberg / EU ESR – LAPELY / 1.6.2013 – 28.2.2014

**ARCSUS – Arctic Urban Sustainability in Russia** / Monica Tennberg / The Barents Institute at the University of Tromsö / The Norwegian Research Council / 15.11.2012 – 15.11.2015

**The Barents Journal** / Monica Tennberg / Kolarctic Enpi CBC Programme 2007-2013 / 18.12.2012 -17.12.2014

**Barents Regional Seminar** / Monica Tennberg / Embassy of Norway / 21.11.2012 – 28.2.2013

**Environmental Safety and Sustainable Development in the Arctic Zone, Grant for Elena Zelenskaya** / Monica Tennberg / Russian Ministry of Education / 1.10.2012 – 31.3.2013

**Neoliberal governance and sustainable development** / Monica Tennberg / Nordic Council of Ministers / 1.8.2012 – 31.12.2012

**CAVIAR-II, Critical Aspects of Adaptive Capacity to Climate Change in the Northern Regions** / Monica Tennberg / Nordland Research Institute / 1.5.2012 – 31.12.2014

**MISTRA – Mistra Arctic Futures: “Preparing for and Responding to Disturbance: Arctic Lessons for Sweden”** / Monica Tennberg / Umeå University / 1.1.2011 – 31.12.2013



## ARCTIC CENTRE PROJECTS 2013

*Northern Institute for Environment and Minority Law*

**Arctic Law and Governance in People's Republic of China and in Finland /**  
 Timo Koivurova / Academy of Finland /  
 1.1.2014 -31.12.2014

**Syrjätyneiden toimijaryhmien osallistumisoikeuksien kehittäminen Suomen ulkopoliitikkassa – erityisfokusena ilmastonmuutoksen tuomat haasteet ja mahdollisuudet /** Leena Heinämäki /  
 Ulkoasiainministeriö / 1.10.2012 – 31.7.2013

**Poronhoito ja muu maankäyttö – Vertaileva tutkimushanke ILO-sopimukseen No. 169 implementoinnin erilaisista vaihtoehtoista Suomen Lapissa /** Tanja Joona / MMM /  
 1.4.2013 – 30.6.2015

**EIA - Testing Improvement Processes of Finnish EIA and the Modes for Application in Arctic Regions of Finland and Russia /**  
 Timo Koivurova / Tekes / 1.1.2013 – 31.12.2014

**SUMILCERE – Sustainable Mining, Local Communities and Environmental Regulation in Kolarctic Area /** Timo Koivurova / Kolarctic Enpi CBC Programme 2007 – 2013 /  
 1.1.2013 – 31.12.2014

**Indigenous property systems /**  
 Timo Koivurova / Nordic Council of Ministers, Nordregio / 1.5.2009 - 30.4.2013

**Thematic Network on Arctic Law /**  
 Timo Koivurova / University of the Arctic, Thule Institute, University of Oulu /  
 21.11.2012 – 31.12.2013

**"It is very intriguing to study for example how a rising global economy like China adapts Arctic law and governance, or if China is going to challenge it"**

Director of NIEM and research professor Timo Koivurova about the new research project comparing Arctic Law and Governance in Finland and in China.

**ADMINISTRATION**

**Saami People and the European Union Arctic Policy /** Paula Kankaanpää / Sámi Council /  
 19.12.2013 – 31.12.2014

**Strategic Environmental Impact Assessment of development of the Arctic /**  
 Paula Kankaanpää / European Commission / 19.12.2012 – 18.6.2014

**Rovaniemi kansainvälisen arktisen yhteistyön keskukseksi /** Paula Kankaanpää / 1.1.2012 – 31.12.2014

**ARKTIS 2007-2012, Arktinen tutkijakoulu /**  
 Paula Kankaanpää ja Päivi Soppela / Opetusministeriö, määräraha tutkijakoulun palkkakustannuksiin /  
 1.1.2007-31.12.2012

**ARKTIS 2010-2013, Arktinen tutkijakoulu /**  
 Paula Kankaanpää ja Päivi Soppela / Suomen Akatemia, tutkijankoulutuskurssit / 1.1.2010 – 31.12.2013

**Kinnvika Legacy /** Paula Kankaanpää /  
 Nordic Council of Ministers, Nordregio /  
 1.5.2009 – 31.12.2013

**SCIENCE COMMUNICATIONS**

**Suomi, EU ja arktinen alue (työntimi) –kirjan ja verkkoversion tuottaminen /** Markku Heikkilä /  
 UM Eurooppatedotus / 1.6.2012 – 31.5.2013

**Barents Mediasphere /** Markku Heikkilä /  
 EU Kolarctic ENPI CBC Programme 2007 – 2013 /  
 25.8.2012 – 31.12.2014

**Yhteishanke Etelämantereelta kerätyn suomalaisen tutkimusdatan tiedonhallinnasta /** Markku Heikkilä /  
 Ilmatieteenlaitos / 1.1.2003 – 31.12.2014

**IBS - Barents Euro-Arctic Council website, Barentsinfo-portal, Barents Information Strategy /** Markku Heikkilä / Barents Euro-Arctic Countries / 1.1.2012 - 31.12.2015

**Pastori Samuli Pentikäisen haastatteluaineiston digitointi /** Markku Heikkilä / Rovaniemen kaupunki /  
 1.8.2012 – 31.12.2013

**"From research to story" /** Markku Heikkilä /  
 Finnish Society for Scientific Information /  
 26.11.2012 – 31.12.2014



**BARENTS  
MEDIASPHERE**  
Journalist trip to  
Murmansk and  
Apatity

**APR  
22-28**

**AURORA BOREALIS EXHIBITION**

Northern lights – science and stories! Dive into the mysterious world of the northern lights at the Arktikum Science Centre. Arctic Centre's temporary exhibition Aurora Borealis intertwines tales and research. For example, sounds of the northern lights are found both in the traditional knowledge of Sami people and in some current studies.

**MAY  
4**

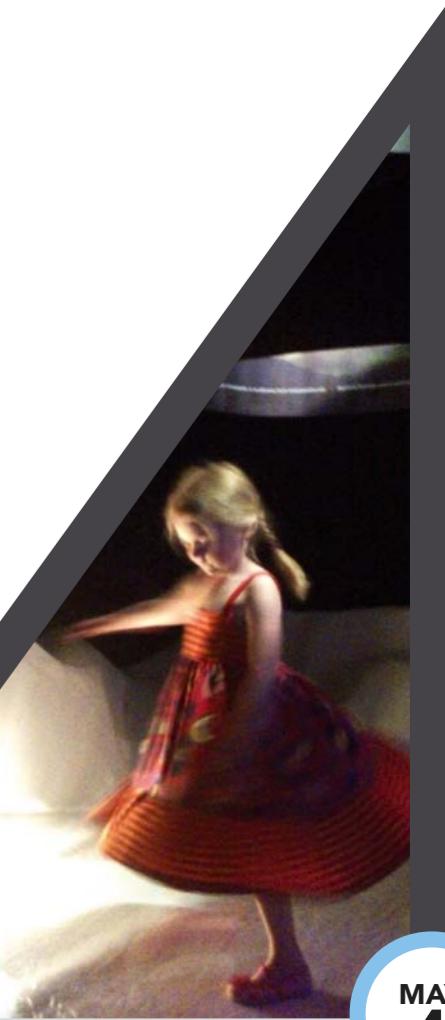
**THE ARCTIC CALLS  
BOOK LAUNCH IN HELSINKI**

**MAY  
5**

**ARCTIC EIA KICK-OFF SEMINAR**

**MAY  
23**

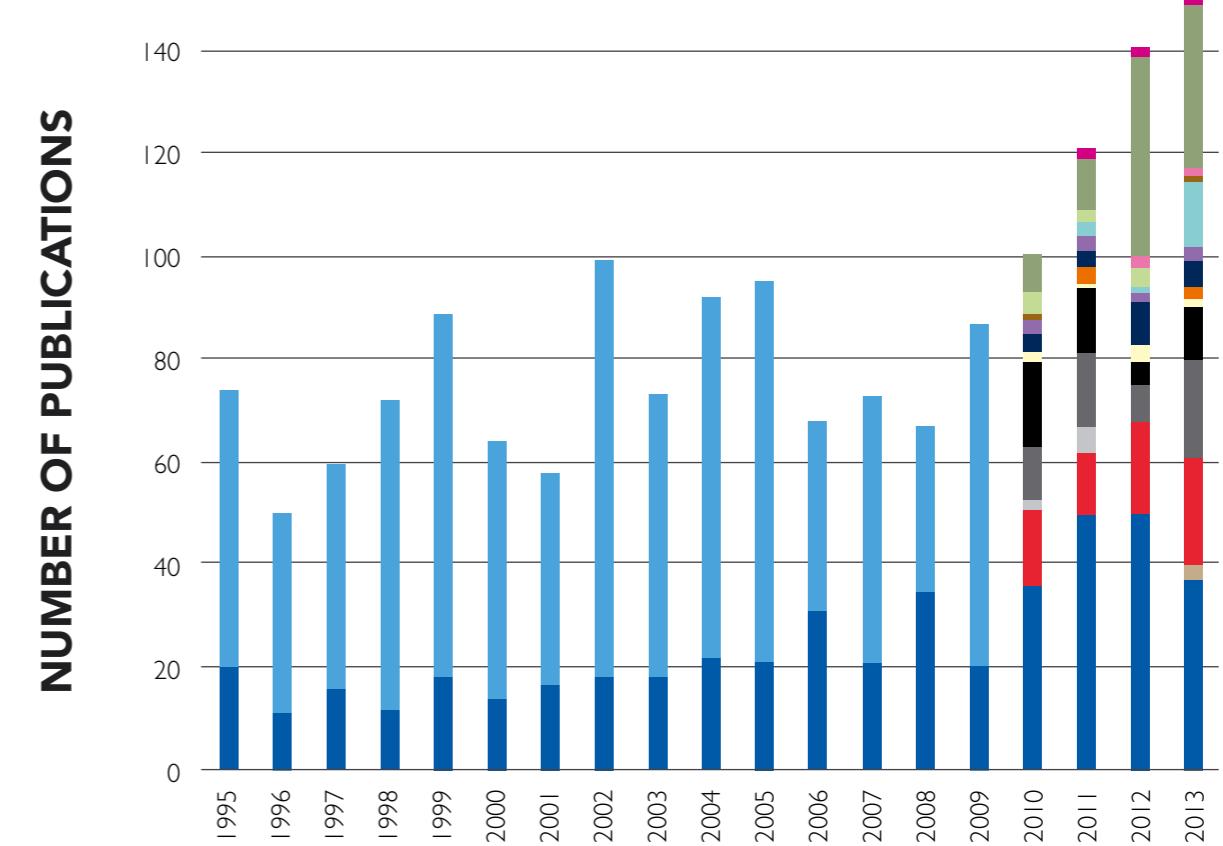
## ARCTIC CENTRE PROJECTS 2013





# PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

- █ A1 PEER REVIEWED ARTICLES IN SCIENTIFIC JOURNALS, ORIGINAL RESEARCH
  - █ A2 PEER REVIEWED REVIEW ARTICLES IN SCIENTIFIC JOURNAL
  - █ A3 PEER REVIEWED ARTICLES OR CHAPTERS IN A SCIENTIFIC BOOK
  - █ A4 PEER REVIEWED ARTICLES IN SCIENTIFIC CONFERENCE PROCEEDINGS
  - █ B1 ARTICLES IN SCIENTIFIC JOURNALS, NOT PEER REVIEWED
  - █ B2 ARTICLES OR CHAPTERS IN SCIENTIFIC BOOKS, NOT PEER REVIEWED
  - █ B3 ARTICLES IN SCIENTIFIC CONFERENCE PROCEEDINGS, NOT PEER REVIEWED
  - █ C1 SCIENTIFIC MONOGRAPHS
  - █ C2 EDITED PUBLICATIONS
  - █ D1 ARTICLES IN PROFESSIONAL JOURNALS AND MAGAZINES
  - █ D2 ARTICLES OR CHAPTERS IN PROFESSIONAL HANDBOOK, TEXTBOOK OR DATABASE
  - █ D3 ARTICLES IN PROFESSIONAL CONFERENCE PROCEEDINGS
  - █ D4 PUBLISHED RESEARCH OR OTHER REPORTS FOR PROFESSIONAL AUDIENCE
  - █ D5 TEXTBOOK, PROFESSIONAL HANDBOOK OR SPECIAL DICTIONARY
  - █ E1 POPULAR ARTICLES, NEWSPAPER ARTICLES
  - █ E2 POPULAR MONOGRAPHS
  - █ G4 DOCTORAL THESIS, ARTICLES
  - █ H NOT PEER REVIEWED PUBLICATIONS



## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**ARKTIS** the author or one of the authors (underlined) is a Ph.D. student in the Arctic Doctoral Programme Arktis.  
Members of AC staff are marked with **bold**.

**PEER REVIEWED ARTICLES IN SCIENTIFIC JOURNALS, ORIGINAL RESEARCH**

**Beaudon, Emilie, Moore, John C.**, Martma, Tõnu, Pohjola, Veijo A., Van De Wal, Roderik S.W., Kohler, Jack, Isaksson, Elisabeth (2013). Lomonosovfonna and Holtedahlfonna ice cores reveal east–west disparities of the Spitsbergen environment since AD 1700. *Journal of glaciology* 59 (2013): 218, p. 1069–1083.  
doi:10.3189/2013JoG12J203

Díaz, Mario, Møller, Anders Pape, Flensted-Jensen, Einar, Grim, Tomáš, Ibáñez-Álamo, Juan Diego, **Jokimäki, Jukka**, Markó, Gábor, Tryjanowski, Piotr (2013). The geography of fear: a latitudinal gradient in anti-predator escape distances of birds across Europe. *PLoS ONE* 8 (2013): 5, nr. e64634.  
doi:10.1371/journal.pone.0064634

**Forbes, Bruce C.** (2013). Cultural resilience of social–ecological systems in the Nenets and Yama–Nenets Autonomous Okrugs, Russia: a focus on reindeer nomads of the tundra. *Ecology and Society: a journal of integrative science for resilience and sustainability* 18 (2013): 4, 36.  
doi: 10.5751/ES-05791-180436

Forsman, Jukka T, Reunanen, Pasi, **Jokimäki, Jukka**, Mönkkönen, Mikko (2013). Effects of canopy gap disturbance on forest birds in boreal forests. *Annales zoologici Fennici* 50 (2013): 5, p. 316–326.  
<http://www.sekj.org/PDF/anz50-free/anz50-316.pdf>

Grinsted, Aslak, **Moore, John C.**, Jevrejeva, Svetlana (2013). Projected Atlantic hurricane surge threat from rising temperatures. *Proceedings of the National Academy of Sciences of the United States of America, PNAS* 110 (2013): 14, p. 5369–5373.  
doi:10.1073/pnas.1209980110

### CHAIRMAN OF THE CPPCC NATIONAL COMMITTEE YU ZHENGSHENG FROM CHINA VISITING

The Arctic Centre had the privilege to have the Chairman of the Chinese CPPCC National Committee, Yu Zhengsheng visiting the Arctic Centre in June. At the Arctic Centre the Chairman Yu Zhengsheng and his delegation got to know the Arktikum Science Centre and the new Aurora Borealis exhibition as well as the Provincial Museum of Lapland. He discussed the arctic research with the Rector of the University of Lapland and the Research Professor, Director of the Northern Institute for Environmental and Minority Law, Timo Koivurova.



JUNE  
5

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

Halme, Panu, Allen, Katherine A., Auniņš, Ainārs, Bradshaw, Richard H. W., Brūmelis, Guntis, Cada, Vojtěch, Clear, Jennifer L., Eriksson, Anna–Maria, Hannon, Gina, Hyvärinen, Esko, Ikauniece, Sandra, Iršėnaitė, Reda, Jonsson, Bengt Gunnar, Junninen, Kaisa, Kareksela, Santtu, Komonen, Atte, Kotiaho, Janne S., Kouki, Jari, Kuuvainen, Timo, Mazzotta, Adriano, Mönkkönen, Mikko, Nyholm, Kristiina, Oldén, Anna, Shorohova, Ekaterina, Strange, Niels, Toivanen, Tero, Vanha–Majamaa, Ilkka, Wallenius, Tuomo, **Ylisirniö, Anna–Liisa**, Zin, Ewa (2013). Challenges of ecological restoration: lessons from forests in northern Europe. *Biological conservation*: an international journal 167 (2013), p. 248–256.  
doi:10.1016/j.biocon.2013.08.029

**Heinämäki, Leena**, Herrmann, Thora (2013). The recognition of sacred natural sites of arctic indigenous peoples as part of their cultural integrity. *Arctic review on law and politics* 4 (2013): 2, p. 206–231.

**Helama, Samuli**, Mielikäinen, Kari, Timonen, Mauri, Herva, Hannu, Tuomenvirta, Heikki, Venäläinen, Ari (2013). Regional climatic signals in Scots pine growth with insights into snow and soil associations. *Dendrobiology* 70 (2013), p. 27–34.  
doi:10.12657/denbio.070.003

**Helama, Samuli**, Holopainen, Jari, Partonen, Timo (2013). Temperature–associated suicide mortality: contrasting roles of climatic warming and the suicide prevention program in Finland. *Environmental health and preventive medicine* 18 (2013): 5, p. 349–355  
doi:10.1007/s12199-013-0329-7

**Hossain, Kamrul** (2013). Securing the rights: a human security perspective in the context of arctic indigenous peoples. *The yearbook of polar law* Vol. 5, p. 493–522

**Hossain, Kamrul** (2013). How great can a “greater say” be? Exploring the aspirations of Arctic indigenous peoples for a stronger engagement in decision-making. *The Polar journal* 3 (2013): 2, p. 316 – 332.

Jones, Andy, Haywood, James M., Alterskjær, Kari, Boucher, Olivier, Cole, Jason N. S., Curry, Charles L., Irvine, Peter J., Ji, Duoying, Kravitz, Ben, Kristjánsson, Jón Egill, **Moore, John C.**, Niemeier, Ulrike, Robock, Alan, Schmidt, Hauke, Singh, Balwinder, Tilmes, Simone, Watanabe, Shingo, Yoon, Jin-Ho (2013). The impact of abrupt suspension of solar radiation management (termination effect) in experiment G2 of the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research: Atmospheres* 118 (2013): 17, p. 9743–9752.  
doi:10.1002/jgrd.50762

8<sup>TH</sup> WORLD CONFERENCE  
OF SCIENCE JOURNALISTS  
IN HELSINKI

Crossover journalism:  
Hot stuff in the Arctic

JUNE  
24-28

**“Sustainable development group became stronger in 2013 as senior researcher Florian Stammer was appointed as a research professor in the fall. He continues to lead the Arctic anthropology team and develops collaboration with the faculty of social sciences. In 2013, the research group had also some success with funding applications, thanks to individual and collective efforts, which secures the work of the researchers in the research group.”**

Research professor Monica Tennberg

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**ARKTIS** **Joonia, Juha** (2013). Kuka kuuluu alkuperäiskansaan: historian vastauksia tämän päivän kysymyksiin. *Lakimies* 111 (2013): 4, s. 734–755.

**Koivurova, Timo** (2013). Arktiset tulevaisuudet: miksi miettiä niitä. *Futura* 32 (2013): 1, p. 69–72.

Kravitz, Ben, Caldeira, Ken, Boucher, Olivier, Robock, Alan, Rasch, Philip J., Alterskjær, Kari, Karam, Diana Bou, Cole, Jason N. S., Curry, Charles L., Haywood, James M., Irvine, Peter J., Ji, Duoying, Jones, Andy, Kristjánsson, Jón Egill, Lunt, Daniel J., **Moore, John C.**, Niemeier, Ulrike, Schmidt, Hauke, Schulz, Michael, Singh, Balwinder, Tilmes, Simone, Watanabe, Shingo, Yang, Shuting, Yoon, Jin-Ho (2013). Climate model response from the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research: Atmospheres* 118 (2013): 15, p. 8320–8332.  
doi:10.1002/jgrd.50646

Kravitz, Ben, Rasch, Philip J., Forster, Piers M., Andrews, Timothy, Cole, Jason N. S., Irvine, Peter J., Ji, Duoying, Kristjánsson, Jón Egill, **Moore, John C.**, Muri, Helene, Niemeier, Ulrike, Robock, Alan, Singh, Balwinder, Tilmes, Simone, Watanabe, Shingo, Yoon, Jin-Ho (2013). An energetic perspective on hydrological cycle changes in the Geoengineering Model Intercomparison Project. *Journal of Geophysical Research: Atmospheres* 118 (2013): 23, p. 13087–13102.  
doi:10.1002/2013JD020502

**Laptander, Roza** (2013). Vivre entre deux cultures frontalières : comment un habitat multiethnique oriente l'autoidentification. *Études finno-ougriennes* 45, p. 196–212.

**ARKTIS** **Lempinen, Hanna** (2013). "Jos se ei riitä, siitä riidellään": energiaturvallisuuden kieli ja kuvakieli turve–energian markkina-argumentteina / Hanna Lempinen In: *Alue ja ympäristö*. Helsinki: Suunnittelumaantieteen yhdistys. ISSN 1235–4554. 42 (2013): 2, p. 53–63

**ARKTIS** **Mettiäinen, Ilona** (2013). Climate change turn in the regional development strategies of an arctic region, case Finnish Lapland. *The yearbook of polar law* Vol. 5, p. 143–183.

Miao, Lijuan, Luan, Yibo, Luo, Xiangzhong, Liu, Qiang, **Moore, John C.**, Nath, Reshma, He, Bin, Zhu, Feng, Cui, Xuefeng (2013). Analysis of the phenology in the Mongolian Plateau by inter-comparison of global vegetation datasets. *Remote sensing* 5 (2013): 10, p. 5193–5208.  
doi:10.3390/rs5105193

**Moore, John C.**, Grinsted, Aslak, Zwinger, Thomas, Jevrejeva, Svetlana (2013). Semiempirical and process-based global sea level projections. *Reviews of geophysics* 51 (2013): 3, p. 484–522.  
doi:10.1002/rog.20015

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**ARKTIS** Nieminen, Mauri, **Norberg, Harri**, Maijala, Veikko (2013). Calf mortality of semi-domesticated reindeer (*Rangifer tarandus*) in the Finnish reindeer-herding area. *Rangifer* 33 (2013): special issue 21, p. 79–90. <http://septentrio.uit.no/index.php/rangifer/article/view/2531>

**Prior, Tahnee Lisa** (2013). Breaking the wall of monocentric governance : polycentricity in the governance of persistent organic pollutants in the Arctic. *The yearbook of polar law* Vol. 5, p. 185–232.

Pölönen, Ismo, **Koivurova, Timo**, Lesser, Pamela (2013). EIA directive at the crossroads: analysis of the Commission's proposal from the Finnish developer's perspective. *Nordic Environmental Law Journal* 2013 : 2, p. 49–66.  
<http://nordiskmiljoratt.se/onewebmedia/NMT%202013-2.pdf>

Rinke, A., Dethloff, K., Dorn, W., Handorf, D., **Moore, John C.** (2013). Simulated Arctic atmospheric feedbacks associated with late summer sea ice anomalies. *Journal of Geophysical Research: Atmospheres* 118 (2013) : 14, p. 7698–7714.  
doi:10.1002/jgrd.50584

**ARKTIS** Ruppel, Meri, Lund, Marianne T., Grythe, Henrik, Rose, Neil, L., Weckström, Jan, Korhola, Atte (2013). Comparison of spheroidal carbonaceous particle data with modelled atmospheric black carbon concentration and deposition and air mass sources in Northern Europe, 1850–2010. *Advances in Meteorology* 2013, Article ID 393926, 15 p.  
doi:10.1155/2013/393926

**ARKTIS** Ruppel, Meri, Välimäki, Minna, Virtanen, Tarmo, Korhola, Atte (2013). Postglacial spatiotemporal peatland initiation and lateral expansion dynamics in North America and northern Europe. *The Holocene* 23 (2013): 11, p. 1596–1606.  
doi:10.1177/0959683613499053

**Shadian, Jessica M.** (2013). Of whales and oil: Inuit resource governance and the Arctic Council. *Polar record* 49 (2013) : 4, p. 392–405.  
doi:org/10.1017/S0032247412000484

**AUG 14-15**  
NPE SEMINAR  
*The North as a global resource region: Perspectives and approaches to Northern Political Economy*

**AUG 26**  
COOL EXPERTS WEBSITE LAUNCH



STAFF DAY IN LOMAVIETONEN

**SEPT 10**

THE ARCTIC CALLS AT TURKU BOOK FAIR



**SEPT 7**

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**Stammler-Gossmann, Anna** (2013). Что такое Север? Концепция российского пространства. Арктика. XXI век. Гуманитарные науки. Якутск : Северо-Восточный федеральный университет им. М. К. Аммосова ISSN 2310-5453 (2013): 1, p. 30–52.  
<http://www.arcticjournal.s-vfu.ru>

Tilmes, Simone, Fasullo, John, Lamarque, Jean-Francois, Marsh, Daniel R., Mills, Michael, Alterskjær, Kari, Muri, Helene, Kristjánsson, Jón Egill, Boucher, Olivier, Schulz, Michael, Cole, Jason N. S., Curry, Charles L., Jones, Andy, Haywood, James M., Irvine, Peter J., Ji, Duoying, **Moore, John C.**, Karam, Diana Bou, Kravitz, Ben, Rasch, Philip J., Singh, Balwinder, Yoon, Jin-Ho, Niemeier, Ulrike, Schmidt, Hauke, Robock, Alan, Yang, Shuting, Watanabe, Shingo (2013). The hydrological impact of geoengineering in the Geoengineering Model Intercomparison Project (GeoMIP). *Journal of Geophysical Research: Atmospheres* 118 (2013) : 19, p. 11036–11058.

doi:10.1002/jgrd.50868

**Turunen, Minna**, Oksanen, Pirita, **Vuojala-Magga, Terhi**, Markkula, Inkeri, Sutinen, Marja-Liisa, Hyvönen, Juha (2013). Impacts of winter feeding of reindeer on vegetation and soil in the sub-Arctic: insights from a feeding experiment. *Polar research* 32 (2013), nr.18610  
doi:10.3402/polar.v32i0.18610

**Turunen, Minna, Vuojala-Magga, Terhi** (2013). Porojen talvinen lisäruokinta: loppopuiden hakkuusta maasto- ja tarharuokintaan. *Suomen riista* 59 (2013), p. 86–99.

Väisänen, Maria, Martz, Françoise, Kaarlejärvi, Elina, Julkunen-Tiitto, Riitta, **Stark, Sari** (2013). Phenolic responses of mountain crowberry (*Empetrum nigrum* ssp. *hermaphroditum*) to global climate change are compound specific and depend on grazing by reindeer (*Tarandus tarandus*). *Journal of chemical ecology* 39 (2013) : 11–12, p. 1390–1399.  
doi:10.1007/s10886-013-0367-z

Xu, L., Myneni, R. B., Chapin III, F. S., Callaghan, T. V., Pinzon, J. E., Tucker, C. J., Zhu, Z., Bi, J., Ciais, P., Tømmervik, H., Euskirchen, E. S., **Forbes, Bruce C.**, Piao, S. L., Anderson, B. T., Ganguly, S., Nemani, R. R., Goetz, S. J., Beck, P. S. A., Bunn, A. G., Cao, C., Stroeve, J. C. (2013). Temperature and vegetation seasonality diminishment over northern lands. *Nature climate change* (2013) (Published online 10 Mar.), 6 p  
doi:10.1038/NCLIMATE1836

**ARKTIS** **Yeasmin, Nafisa** (2013). Implementation of the EU immigration policy in the Barents Euro-Arctic Region: towards a framework for policy analysis. *The yearbook of polar law* Vol. 5, p. 603–640.  
Zeng, Heqing, Jia, Gensuo, **Forbes, Bruce C.** (2013). Shifts in Arctic phenology in response to climate and anthropogenic factors as detected from multiple satellite time series. *Environmental research letters* 8 (2013), 035036 (12 p.)  
doi:10.1088/1748-9326/8/3/035036

NCoE  
TUNDRA  
MEETING

SEPT  
5-6

## BARENTS CAFÉ

Journalism in the Barents region:  
what are the limits in freedom of  
speech and the possibilities for  
critical journalism in Russia?

SEPT  
12

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

Åström, J. A., Riikilä, T. I., Tallinen, T., Zwinger, T., Benn, D., **Moore, J. C.**, Timonen, J. (2013). A particle based simulation model for glacier dynamics. *The Cryosphere*. An interactive open access journal of the European Geosciences Union 7 (2013), p. 1591–1602.  
doi: 10.5194/tc-7-1591-2013

**Peer reviewed articles in scientific journals, review articles**

Bernes, Claes, Bråthen, Kari Anne, **Forbes, Bruce C.**, Hofgaard, Annika, Moen, Jon, Speed, James D. M. (2013). What are the impacts of reindeer/caribou (*Rangifer tarandus* L.) on arctic and alpine vegetation? A systematic review protocol. *Environmental evidence* 2 (2013), nr. 6  
doi:10.1186/2047-2382-2-6

Gagliardini, O., Zwinger, T., Gillet-Chaulet, F., Durand, G., Favier, L., de Fleurian, B., Greve, R., Malinen, M., Martín, C., Råback, P., Ruokolainen, J., Sacchettini, M., **Schäfer, Martina**, Seddik, H., Thies, J. (2013). Capabilities and performance of Elmer/Ice, a new-generation ice sheet model. *Geoscientific model development* : an interactive open access journal of the European Geosciences Union 6 (2013), p. 1299–1318  
<http://dx.doi.org/10.5194/gmd-6-1299-2013>

**ARKTIS** **Kaján, Eva**, Saarinen, Jarkko (2013). Tourism, climate change and adaptation : a review. *Current issues in tourism* 16 (2013) : 2, p. 167–195.  
doi:10.1080/13683500.2013.774323

## PROTECTING THE SACRED

Recognition of Sacred Sites of Indigenous Peoples for Sustaining nature and Culture in Northern and Arctic Regions International conference "Protecting the Sacred" brought together scientists, sacred natural sites custodians, Indigenous Peoples' Organizations, policy makers, conservation and civil society leaders, to evaluate options for international and national law, policy and practice in order to better recognize, safeguard, conserve and manage Sacred Natural Sites (SNS) of Indigenous Peoples in Northern and Arctic regions. Conference was held in Rovaniemi and Pyhäntunturi, Finland.



## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**Peer reviewed articles or chapters in scientific books**

**Dudeck, Stephan** (2013). Challenging the state educational system in Western Siberia : taiga school by the Tiumtakha River. In: Sustaining indigenous knowledge: learning tools and community initiatives for preserving endangered languages and local cultural heritage. Ed. by Erich Kasten and Tjeerd De Graaf. Fürstenberg, Havel: Kulturstiftung Sibirien, 2013. ISBN 978-3-942883-12-2. p. 129–157.

**Forbes, Bruce C.** (2013). Tundra biome. In: Oxford bibliographies in ecology. Oxford: Oxford University Press, 2013. <http://www.oxfordbibliographies.com>

**Heinämäki, Leena** (2013). The Nordic Saami Convention: the right of a people to control issues of importance to them. In: The proposed Nordic Saami Convention : national and international dimensions of indigenous property rights. Edited by Nigel Bankes and Timo Koivurova. Oxford : Hart Publishing, 2013. ISBN 978-1-84946-272-3. p. 125–147.

**Helander-Renvall, Elina** (2013). On customary law among the Saami people. In: The proposed Nordic Saami Convention : national and international dimensions of indigenous property rights. Edited by Nigel Bankes and Timo Koivurova. Oxford : Hart Publishing, 2013. ISBN 978-1-84946-272-3. p. 281–291.

**Hossain, Kamrul** (2013). China-US relations concerning the dispute over the South China Sea: an assessment from the Law of the Sea perspective. In: US policy towards China, India and Japan : new challenges and prospects. Edited by Madhuchanda Ghosh, Raj Kumar Kothari, Takehiko Yamamoto. New Delhi : Atlantic Publishers & Distributors, 2013. ISBN 9788126918102. p. 194–223.

**Hossain, Kamrul** (2013). The international environmental law-making process In: The Routledge handbook of international environmental law. Edited by Shawkat Alam, Md Jahid Hossain Bhuiyan, Tareq M.R. Chowdhury and Erika J. Techera. London : Routledge, 2013. ISBN 978-0-415-68717-1. p. 61–75.

Huntington, Henry, Arnbom, Tom, Danielsen, Finn, Enghoff, Martin, Euskirchen, Eugénie, **Forbes, Bruce C.**, Kurvits, Tiina, Levermann, Nette, Løvstrøm, Peter, Mustonen, Kaisu, Mustonen, Tero, Schiøtz, Martin, Sommerkorn, Martin, Svoboda, Michael, Topp-Jørgensen, Elmer, York, Geoff (2013). Disturbance, feedbacks and conservation. In: Arctic biodiversity assessment: status and trends in Arctic biodiversity. Ed. by Hans Meltofte, Alf B. Josefson and David Payer. Akureyri: The Conservation of Arctic Flora and Fauna (CAFF), 2013. ISBN 978-9935-431-22-6. p. 630–651.

Ims, Rolf A., Ehrlich, Dorothee, **Forbes, Bruce C.**, Huntley, Brian, Walker, Donald A., Wookey, Philip A., Berteaux, Dominique, Bhatt, Uma S., Bråthen, Kari A., Edwards, Mary E., Epstein, Howard E., Forchhammer, Mads C., Fuglei, Eva, Gauthier, Gilles, Gilbert, Scott, Leung, Maria, Menyushina, Irina E., Ovsyanikov, Nikita, Post, Eric, Raynolds, Martha K., Reid, Donald G., Schmidt, Niels M., Stien, Audun, Sumina, Olga I., van der Wal, Rene (2013). Terrestrial ecosystems. In: Arctic biodiversity assessment: status and trends in Arctic biodiversity. Ed. by Hans Meltofte, Alf B. Josefson and David Payer. Akureyri: The Conservation of Arctic Flora and Fauna (CAFF), 2013. ISBN 978-9935-431-22-6. p. 384–440.

ORHELIA WORKSHOP

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NORSIL SEMINAR

27

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**ARKTIS** **Joonas, Juha** (2013). The draft Nordic Saami Convention and the indigenous population in Finland. In: The proposed Nordic Saami Convention : national and international dimensions of indigenous property rights. Edited by Nigel Bankes and Timo Koivurova. Oxford : Hart Publishing, 2013. ISBN 978-1-84946-272-3. p. 229–253.

**Joonas, Tanja** (2013). The subjects of the draft Nordic Saami Convention. In: The proposed Nordic Saami Convention : national and international dimensions of indigenous property rights. Edited by Nigel Bankes and Timo Koivurova. Oxford : Hart Publishing, 2013. ISBN 978-1-84946-272-3. p. 255–279.

Keskitalo, E. Carina H., Åkermark, Jenny, **Vola, Joonas** (2013). Flood risks along the Torne River between Sweden and Finland. In: Climate change and flood risk management: adaptation and extreme events at the local level. Edited by E. Carina H. Keskitalo. Cheltenham : Edward Elgar, 2013. ISBN 9781781006665 (hardback). p 67–94.  
doi:10.4337/9781781006672

**Koivurova, Timo** (2013). Can Saami transnational indigenous peoples exercise their self-determination in a world of sovereign states. In: The proposed Nordic Saami Convention: national and international dimensions of indigenous property rights. Edited by Nigel Bankes and Timo Koivurova. Oxford : Hart Publishing, 2013. ISBN 978-1-84946-272-3 . p. 105–124.

**Koivurova, Timo** (2013). Gaps in international regulatory frameworks for the Arctic Ocean. In: Environmental security in the Arctic Ocean. Dordrecht: Springer. ISBN 978-94-007-4751-7. p. 139–155.

**Koivurova, Timo** (2013). Jurisprudence of the European Court of Human Rights regarding indigenous peoples: retrospect and prospects. In: The interpretation and application of the European Convention of Human Rights: legal and practical implications. Ed. by Małgorzata Fitzmaurice and Panos Merkouris. Leiden: Martinus Nijhoff, 2013. ISBN 978-90-04-24281-4. p. 217–257.

**Koivurova, Timo, Duyck, Sébastien, Heinämäki, Leena** (2013). Climate change and human rights. In: Climate change and the law. Ed. By Hollo, Erkki J., Kulovesi, Kati, Mehling, Michael. New York: Springer, 2013. ISBN 978-94-007-5440-9. p. 287–325.

**Laptander, Roza** (2013). Model for the tundra school in Yamal: a new educational system for children from nomadic and semi-nomadic Nenets families. In: Sustaining indigenous knowledge: learning tools and community initiatives for preserving endangered languages and local cultural heritage. Edited by Erich Kasten, Tjeerd De Graaf. Fürstenberg, Havel: Verlag der Kulturstiftung Sibirien, 2013. ISSN 978-3942883122. p. 181–194.

**"Cultural diversity, hospitality of people and cold lands - warm hearts"**

Research Professor Florian Stammer describes the Arctic in short at the National Geographic's Great Energy Challenge event in London, September 2013



SCIENCE CENTRE  
WORKSHOP IN TROMSØ  
Staff from the Arktikum Science Centre participated in an Interactive Visualization Workshop in Tromsø at the end of September.

27

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

**Mazzullo, Nuccio** (2013). The Nellim forest conflict in Finnish Lapland: between state forest mapping and local forest living. In: Nomadic and indigenous spaces: productions and cognitions. Edited by Judith Miggelbrink, Peter Koch, Joachim Otto Habeck and Nuccio Mazzullo. Farnham, Surrey: Ashgate, 2013. ISBN 978-1-4094-6458-7. p. 91–112.

Mäkitie, Tuukka, **Ylisirniö, Anna-Liisa** (2013). Conflicting discourses in tourism development: a case of Kilpisjärvi village. In: New issues in polar tourism: communities, environments, politics. Ed. by Dieter K. Müller, Linda Lundmark, Raynald H. Lemelin. Dordrecht: Springer, 2013. ISBN 978-94-007-5883-4. p. 163–176.

Nascimbene, Juri, **Ylisirniö, Anna-Liisa**, Pykälä, Juha, Giordani, Paolo (2013). Lichens: sensitive indicators of changes in the forest environment. In: Integrative approaches as an opportunity for the conservation of forest biodiversity. Ed. by Daniel Kraus and Frank Krumm. Freiburg: European Forest Institute. ISBN 978-952-5980-06-6. p. 180–185.

**Shadian, Jessica M.** (2013). The Arctic gaze: redefining the boundaries of the Nordic region. In: Science, geopolitics and culture in the polar region: Norden beyond borders. Edited by Sverker Sörlin. Farnham : Ashgate, 2013. ISBN 978-1-4724-0969-0.

**Stammler, Florian** (2013). Narratives of adaptation and innovation: ways of being mobile and mobile technologies among reindeer nomads in the Russian arctic. In: Nomadic and indigenous spaces : productions and cognitions. Edited by Judith Miggelbrink, Peter Koch, Joachim Otto Habeck and Nuccio Mazzullo. Farnham, Surrey: Ashgate, 2013. ISBN 978-1-4094-6458-7. p. 221–246.

**Vuojala-Magga, Terhi, Turunen, Minna** (2013). Experiences with an arctic river: flood prevention in the town of Ivalo. In: Climate change and flood risk management: adaptation and extreme events at the local level. Edited by E. Carina H. Keskitalo. Cheltenham: Edward Elgar, 2013. ISBN 9781781006665. P. 237–270.

## BARENTS EDITORS' FORUM 2013

Editors-in-chief from the Barents Region met for the very first time when the Barents Editors' Forum was organized by the Barents Mediasphere project in Kirkenes. Participants came from major editorial offices from northern Finland, Norway, Russia and Sweden, both from Radio and TV, electronic and print media. The idea of the meeting is to offer an opportunity for media networking and sharing of best practices.

OCT  
1-3

## PUBLICATIONS OF THE ARCTIC CENTRE IN 2013

## Articles in scientific journals, not peer reviewed

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## EU ARCTIC IMPACT ASSESSMENT CONSULTATIONS STAKEHOLDER CONSULTATION IN ROVANIEMI

The European Commission is interested in listening to the views of Arctic stakeholders – those actors who influence and are affected by changes occurring in the region. Therefore, the EU has allocated EUR 1 million for a project aimed at compiling different perspectives on Arctic developments and EU's role in the Arctic and producing an EU Arctic Impact Assessment Report.

As a part of this assessment work, some 60 stakeholders mainly from Lapland and other parts of Finland but also from the Northern Fennoscandia and from international organizations will gather in Rovaniemi on October 3, 2013.

**EUROBIRDWATCH 2013**  
The EuroBirdwatch is BirdLife International's annual festival of events which invites all citizen members from all over Europe to get out and observe and explore birds.

OCT  
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21ST MEETING OF THE EEA CONSULTATIVE COMMITTEE, EUROPEAN ECONOMIC AREA CONSULTATIVE COMMITTEE

OCT  
10-11

GAME ADDICTION, ARCTIC RESEARCH AND BARENTS MEDIA

Journalists from Murmansk, Apatity, Archangelsk and Karelia visited the Arctic Centre and Arktikum during their course in Finland. Visit to the Arctic Centre brought knowledge about Arctic research and the Barents Mediasphere project.

OCT  
17



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ARCTIC CENTRE'S AVES OULUENSIS BIRD PHOTO EXHIBITION

OCT  
NOV

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ARCTIC FURY FILM  
AND MEDIA FESTIVAL  
IN NOVEMBER IN  
ARKTIKUM, ROVANIEMI

NOV  
5-9

FROST FLOWERS &  
BALLOONS EXHIBITION  
*Climate change viewed by youth.*  
Project by Arktikum Science Centre.

NOV  
4-15

IN THE SPIRIT OF ROVANIEMI  
PROCESS CONFERENCE

International Arctic Conference "Rovaniemi Process" (December 2-4, 2013) in Rovaniemi, Finland is presenting the latest research scientific knowledge about the global processes as they become local realities.



DEC  
2-4

## EDITED SCIENTIFIC BOOKS, CONFERENCE PROCEEDINGS OR SPECIAL ISSUES OF A JOURNAL

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Árktis gohču : Suopma, EU ja árktalaš guovlu. ISBN 978-952-281-067-0.

Arktis kallar: Finland, EU och den arktiska regionen. ISBN 978-952-281-063-2

Lensu, Mikko, **Kankaanpää, Paula** (2013). 80°N : Kinnvika. Rovaniemi : Arctic Centre of the University of Lapland. ISBN 978-952-5969-34-4. 192 pages.

# EXPERT MEMBERSHIPS

## YEAR 2013

The staff members of the Arctic Centre are invited as experts in various national and international boards. This activity has wide scientific and societal impact. Here are examples of memberships in 2013.

### PUBLICATIONS

- › Acta Borealia - A Nordic Journal of Circumpolar Societies / Elina Helander-Renvall, member of editorial board
- › American Journal of Climate Change / John Moore, editor in chief
- › Arctic and Antarctic Journal / Anna Stammmer-Gossmann, co-editor
- › Arctic Human Development Report II / Elina Helander-Renvall, chapter reviewer
- › The Arctic Review of Law and Politics / Timo Koivurova, editor & Kamrul Hossain, member of editorial board
- › Barents Studies: Peoples, Economies and Politics/Monica Tennberg, member of the editorial theme & editor
- › Chinese Journal of Polar Science / John Moore, member of editorial board
- › Climate Change Research Letters / John Moore, editor in chief
- › Cooperation and Conflict. Journal of the Nordic International Studies Association / Monica Tennberg, member of editorial advisory board
- › The Cryosphere / John Moore, member of editorial board
- › Ecology and Society/ Bruce Forbes, subject editor Fennia / Bruce Forbes, member of editorial board
- › Finnish game Suomen riista / Osmo Rätti, member of editorial board
- › Geografiska Annaler: Series A, Physical Geography / Paula Kankaanpää, co-editor
- › International Journal of Wilderness / Anna-Liisa Ylisirniö, associate editor



**ARCTIC MARKET DAYS**  
Unique Arctic handicrafts, art and Christmas spirit in Gallery Valo, Arktikum just before Christmas.

DEC  
13-15

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### EXPERT MEMBERSHIPS

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- › Arctic Human Development Report II (AHDR-II), Sustainable Development Working Group, Arctic Council / Bruce Forbes, member of steering group and lead author & Timo Koivurova, lead author in legal chapter
- › Arctic Research Consortium of the US, ARCUS / Timo Koivurova, executive board member & Paula Kankaanpää, council member  
Arctic resilience report /Timo Koivurova, working group membership to produce part 2 of the ARR
- › Arctic Social Indicators (ASI), Sustainable Development Working Group, Arctic Council / Bruce Forbes, member
- › Arctic Society of Finland Suomen Arktinen Seura / Paula Kankaanpää, member of board
- › ARKTIS Doctoral Programme / Directory Board members: Paula Kankaanpää (chair), Päivi Soppela (coordinator), Monica Tennberg, Bruce Forbes, Timo Koivurova and Ilona Mettiäinen / deputy members: Adam Stepien, Jukka Jokimäki and Elina Helander-Renvall
- › Arran Lule Sámi Centre in Drag, Norway / Florian Stammmer, expert consultant
- › Assessment of research and coproduction of Mid Sweden University /Anna-Liisa Ylisirniö, member of the International Evaluation Panel (Biology and Ecotechnology), 2013
- › Background group of Arctic Council, Ministry for Foreign Affairs Arktisen neuvoston taustaryhmä, Ulkoministeriö / Paula Kankaanpää, expert member
- › Background Group of Barents Council Barentsin neuvoston taustaryhmä, Ministry of Foreign Affairs Ulkoministeriö / Markku Heikkilä, expert
- › Climate Action Network Working Group on NGO Participation / Sébastien Duyck, co-coordinator
- › Council for Finnish University Libraries, Research Support Network / Liisa Hallikainen, representative of the University of Lapland
- › Different Land-Uses and Local Communities in Mining Projects (DILACOM) / Antti Aikio, member of steering group
- › Effect of snow conditions on reindeer winter mortality and calf production (Makera)/ Minna Turunen, chair of the steering group
- › EU Cost Action FA0906 UV-B radiation: A specific regulator of plant growth and food quality in a changing climate (UV4Growth) / Minna Turunen, member of management committee
- › EU Cost Action, Marsafenet / Timo Koivurova, member of management committee & working group member with Kamrul Hossain
- › Extractive Industry Working Group of IASSA (International Arctic Social Sciences Association) / Florian Stammmer, coordinator
- › Finnish National Committee of Arctic and Antarctic Research Polaarialueiden tutkimuksen kansallinen komitea, Council of Finnish Academies Suomen tiedeakatemia / Paula Kankaanpää, member & Arto Vitikka, secretary
- › The Finnish Association of Non-fiction Writers Suomen Tietokirjailijat ry / Markku Heikkilä, member of board & regional chair of Lapland
- › The Finnish Publication Forum Project / Osmo Rätti, member of panel (Biological sciences I)
- › Finnish Society for Political Economy Research Poliittisen talouden tutkimuksen seura / Hanna Lempinen, vice-chair
- › Fulbright Board, Finland-United States Education Commission (FUSEC) / Bruce Forbes, member
- › Hammastunturi reindeer herding co-operative / Terhi Vuojala-Magga, member
- › Hokkaido Museum of Northern Peoples in Abashiri, Japan / Florian Stammmer, expert consultant
- › Human Rights and Climate Change Working Group / Sebastian Duyck, co-coordinator
- › Human rights delegation overseeing the newly established Human Rights Centre / Timo Koivurova, member
- › Intergovernmental Panel on Climate Change, 5th Assessment Report, Working Group II Impacts, Adaption and Vulnerability / Bruce Forbes, member
- › The International Advisory Board on Human Rights, Ministry of Foreign Affairs / Timo Koivurova, expert member
- › International Arctic Science Committee (IASC) Glaciology Network / John Moore, Finnish representative
- › International Arctic Social Sciences Association (IASSA), Florian Stammmer, executive council member
- › The international environmental law interest group of the American Society of International Law (ASIL) / Timo Koivurova, co-chair

## EXPERT MEMBERSHIPS

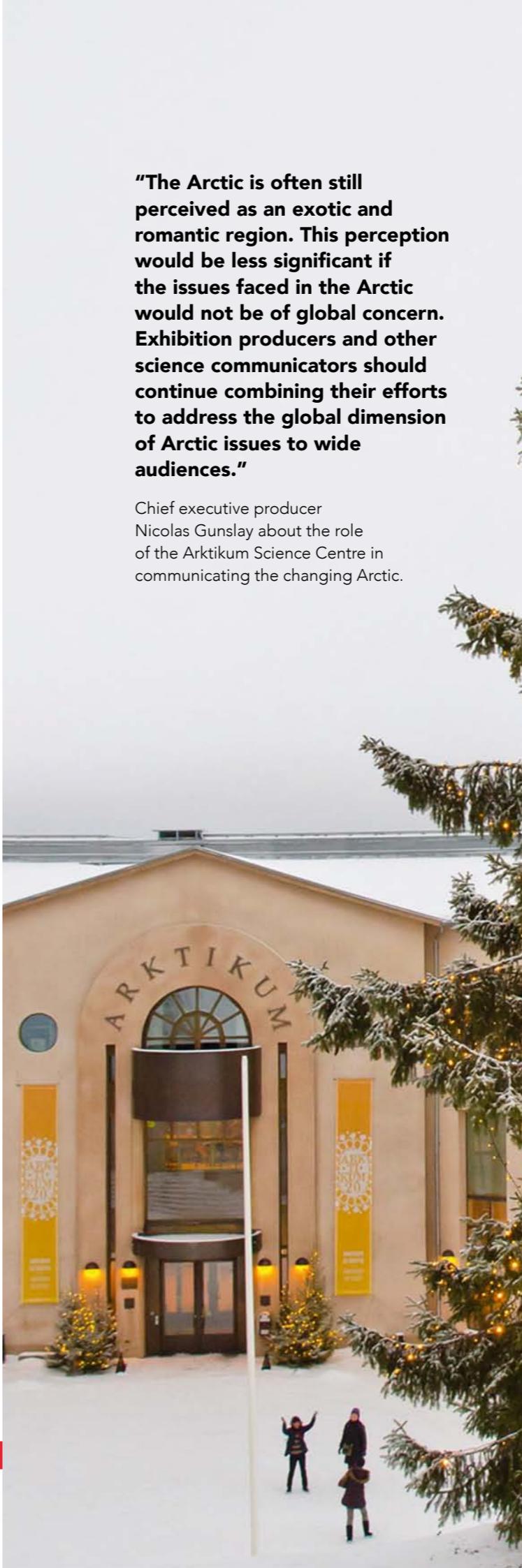
- > The IUCN's Academy of Environmental Law (ICEL) / Timo Koivurova & Kamrul Hossain, members
- > The IUCN's Commission on Environmental (CEL) / Timo Koivurova, member
- > The IUCN's International Council of Environmental Law (ICEL) / Timo Koivurova, member
- > Kilpisjärvi village environment project Kilpisjärven kylämpäristöhanke / Anna-Liisa Ylisirniö, member of steering committee
- > Lapland Ornithologic Association Lapin lintutieteellinen yhdistys / Jukka Jokimäki, member of board
- > LTSER, Long-Term Socio-Ecological Research in Lapland Ympäristöalan pitkäaikaisaineistot Lapin tutkimusasemien verkostointumisen kilpailutekijänä / Anna-Liisa Ylisirniö, member of the steering group
- > National indigenous knowledge expert group of Environmental ministry on Convention on biological diversity art 8j Biologista monimuotoisuutta koskevan yleissopimuksen alkuperäiskansojen perinnetietoa käsittelevän art. 8j:n kansallinen asiantuntijaryhmä, Ympäristöministeriö / Elina Helander-Renvall, member of board
- > Nordic Network on sami and indigenous law (NORSIL) / Timo Koivurova, member of steering committee
- > The Norwegian Research Council's Geopolitikk-Nord / Timo Koivurova, member of steering committee
- > The Norwegian Research Council's NORRUSS / Kamrul Hossain, member of expert panel
- > The Norwegian Research Council's NORRUSS / Timo Koivurova, member of steering committee
- > Polish Academy of Sciences, Committee of Polar Research, Working group on Social Sciences and Polar Research history / Adam Stepien & Małgorzata Smieszek, members
- > Project Management Institute / Kamil Jagodzinski, expert member
- > Reindeer Husbandry Section; Nordic Association of Agricultural Sciences / Päivi Soppela, board member
- > Research advisory group of Multidimensional Tourism Institute Matkailualan tutkimus- ja koulutusinstituuttiin tutkimustiimi / Anna-Liisa Ylisirniö, vice-member
- > Research Council of Norway / Anna Stammmer-Gossmann, expert, projects' evaluation
- > Research Council of Norway / Kamrul Hossain, panel member of grant evaluation committee
- > Research Ethics Board of ACCESS (Arctic Climate Change, Economy and Society), Anna Stammmer-Gossmann, chair
- > Research on reindeer herding and natural sources of livelihood advisory board Porotalous-ja luontaiselinkeinotutkimuksen neuvottelukunta, Ministry of Agriculture and Forestry Maa- ja metsätalousministeriö / Minna Turunen, member
- > Research Society of Lapland Lapin tutkimusseura / Markku Heikkilä, board member
- > Restoration of the freshwater pearl mussel populations with new methods (InterregVNord) / Minna Turunen, member of the steering group
- > Russian Geographical Society / Florian Stammmer, expert member (deistvitel'nyi chlen)
- > Sami Research on law and social sciences at the University of Lapland Lapin yliopiston oikeustieteellisen ja yhteiskuntatieteellisen saamen tutkimuksen ohjausryhmä / Elina Helander-Renvall, member of steering group
- > Samuli Paulaharju Foundation Samuli Paulaharju säätiö / Terhi Vuojala-Magga, member of board
- > Scott Polar Research Institute at the University of Cambridge, UK / Florian Stammmer, institute associate
- > The Social Science Working Group in the Committee on Polar Research of the Polish Academy of Sciences / Adam Stepien, member
- > Standing Committee on Antarctic Data Management / Arto Vitikka, member
- > University of the Arctic's Arctic Extractive Industries Thematic Network / Florian Stammmer, lead
- > University of the Arctic's Arctic Law Thematic Network / Timo Koivurova, chair ; Tanja Joona & Leena Heinämäki, vice-leads
- > University of Lapland, Board / Paula Kankaanpää, member

2013

2014

**"The Arctic is often still perceived as an exotic and romantic region. This perception would be less significant if the issues faced in the Arctic would not be of global concern. Exhibition producers and other science communicators should continue combining their efforts to address the global dimension of Arctic issues to wide audiences."**

Chief executive producer Nicolas Gunsley about the role of the Arktikum Science Centre in communicating the changing Arctic.



## ARCTIC CENTRE & CHINA

In 2013 Arctic Centre cooperated closely with Beijing Normal University, China, where John Moore leads the Joint Chinese Universities Initiative on geoengineering research which also includes Chinese Academy of Social Sciences and the Chinese Meteorological Agency. John Moore also leads a series of projects on advanced modelling of polar ice dynamics and sea level rise in cooperation with the Polar Research Centre of China (Shanghai), CSC in Helsinki, University of Bristol, UK, and National Oceanographic Centre, UK which is funded by the National Science Foundation of China, The Ministry of Science and Technology Global Change Programme and the State Key Laboratory on Earth Surface Processes.

The China-Nordic Arctic Research Centre CNARC was established in December 2013 in a meeting in Shanghai hosted by the Polar Research Institute of China, PRIC. The Arctic Centre represents Finland in the network which has five Chinese and six Nordic member institutes. The other Nordic partners are Fridtjof Nansen Institute (Norway), Icelandic Center for Research, Nordic Institute of Asian Studies (Denmark), Norwegian Polar Institute and Swedish Polar Research Secretariat.

## ARCTIC CENTRE ANNUAL REPORT 2013

### EDITOR

Jenni Lintula

### LAYOUT

Jani Kärppä

### PHOTOGRAPHERS

Jani Kärppä (cover & page 33), Jenni Lintula (pages 4 / 5 / 9 / 17), Anna-Leena Muotka (page 5), Kamil Jagodzinski (page 11 / 23), Johan-Erik Kukko (page 12 / 14 / 18 / 29), Ilona Mettiäinen (page 14), Marjo Laukkonen (pages 15 / 27 / 31), Arto Vitikka (pages 17 / 28 / 41), Arto Litri (page 20), Eurooppatedotus (page 23), Francis Joy (page 25), Anniina Koivurova (page 32), Paula Kankaanpää (page 38), Pekka Koski (page 42)

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**"There is an obvious interest to have information and news of what is happening across the borders in the Barents region but lack of time and resources is creating problems"**

Head of Science Communications,  
Markku Heikkilä about the 1st Barents Editors' Forum,  
held in Kirkenes in October 2013.





## **CONTACT INFORMATION**

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