UArctic Thematic Network on Frozen Arctic Conservation

Activities 2022

Events:

- UArctic Frederik Paulsen Seminar, Reykjavik, Iceland, October 11, 2022. A meeting for scientists, engineers, indigenous leaders, politicians, environmental economists etc. for scientific and community perspective discussions on ice sheet conservation. Followed by a public event on 12.10.2022
- UArctic Frederik Paulsen High Level Seminar, Arctic Circle Assembly, Reykjavik, Iceland, October 12, 2022. Presenters: John Moore, Ilona Mettiäinen, Julius Jeremiassen, Linda Lyberth Kristiansen, Kuupik V. Kleist, Katharine Ricke, Michael Wolovick, Bowie Keefer, and Christian Schoof; moderated by Oliver Morton. https://www.uarctic.org/news/2022/10/uarctic-frederik-paulsen-high-level-seminar-among-the-metings-on-active-conservation-of-the-greenland-ice-sheet/
- Youth Science-Art workshop at Atuarfik Mathias Storch, Ilulissat, Greenland, April 26, 2022. Prof. John Moore, researcher Ilona Mettiäinen and head teacher Julius Jeremiassen, Atuarfik Mathias Storch.
- Youth Science-Art Exhibition, Atuarfik Mathias Storch, Ilulissat, Greenland (opening event 7.10.2022) Julius Jeremiassen, John Moore, Ilona Mettiäinen.
- GRISCO community workshop in Ilulissat, Greenland, October 27, 2022.
- GRISCO community workshop in Nuuk, Greenland, May 3, 2022.
- GRISCO community workshop in Ilulissat, Greenland, October 6, 2022.

Publications:

- Mettiäinen, Ilona, Holly Jean Buck, Douglas G. MacMartin, and Katharine L. Ricke (2022) '`Bog here, marshland there': tensions in co-producing scientific knowledge on solar geoengineering in the Arctic', Environmental Research Letters, 17(4), p. 045001. Available at: https://doi.org/10.1088/1748-9326/ac5715.

Research projects:

- GRISCO Greenland ice sheet conservation as a community designed response to climate change project, NCM Arctic Cooperation Programme August 2021 - October 2022. https://www.arcticcentre.org/EN/grisco

Outreach:

- Lead interview Frozen Arctic Conservation https://www.uarctic.org/activities/thematic-networks/frozen-arctic-conservation/
- GRISCO project website https://www.arcticcentre.org/EN/grisco
- Press release Preventing ice sheet collapse by seabed anchored curtains in Greenland taking steps forward (ENG) / Grönlannin jäätiköiden valahtamista mereen voidaan ehkäistä meren pohjan

rakennelmilla (FI), sent 26.10.2022 by Arctic Centre communications unit to 89 recipients including newspapers, TV channels, radios etc. (local media in Lapland and Rovaniemi, North Finland main media, national media in Finland)

- GRISCO project is covered in the documentary film about research at the Arctic Centre, done by RARE Media and science journalist, researcher Johannes Roviomaa; funded by the Nessling Foundation, Finland; to be published in late 2023
- "Ice Sheet stabilization: What role for targeted geoengineering to mitigate climate change?" John Moore: presentation to UK ambassador and delegation to Finland
- "Why is the climate crisis so difficult? What roles for geoengineering and active conservation" John Moore: presentation to JiRan Green Tech company, China 7.4.2022.
- John Moore: "Frozen Arctic Conservation" Invited talk at the UArctic general assembly 5.5.2022.
- Keynote speech "Active conservation of the cryosphere, could it, and should it be attempted?" Prof. John Moore, Gordon Research Conference Climate Engineering 2022, 26.6.-1.7.2022, USA.
- Poster: "Would ice sheet conservation be a good or a bad idea in Ilulissat Icefjord?" by Ilona Mettiäinen, Lu Cheng, Liyun Chao, Michael Wolovick, Bowie Keefer & John Moore. Gordon Research Conference Climate Engineering 2022, 26.6.-1.7.2022, USA.
- John Moore & Ilona Mettiäinen: "Monetizing the Greenland ice sheet for the common good". Land, water, snow and ice as Arctic elements seminar, Arctic Centre, University of Lapland and Natural Resources Institute Finland 31.8.2022, Rovaniemi, Finland.
- Panel discussion at the Arctic Circle Assembly 2022, Reykjavik, Iceland, 14.10.2022. Organizer Cambridge Climate Repair Centre, Cambridge University, the UK. Ilona Mettiäinen: "Arctic Community Viewpoints to Climate Change and Climate Intervention and its Research".
- GRISCO project is covered in the documentary film by Gwynne Dyer and Tina Viljoen; to be published in 2023 (tbc).
- Fieldwork in Ilulissat and Nuuk, Greenland / Ilona Mettiäinen, Arctic Centre, University of Lapland 20.4.-8.5.2022.
- Visiting researcher (staff mobility) at Ilisimatusarfik (University of Greenland), Ilona Mettiäinen, Arctic Centre, University of Lapland 28.4.-6.5.2022.
- Aker Solutions Explores First-of-a-Kind Engineering Solution to Slow Melting of Glaciers. https://www.akersolutions.com/news/news-archive/2022/aker-solutions-explores-first-of-a-kind-engineering-solution-to-slow-melting-of-glaciers/
- DW Planet popular science video https://www.youtube.com/watch?v=WXJh9Ui9ADY&lc=UgySBX-zG22bSTPL_Rt4AaABAg
- "Ilmastonkorjaus ja kansalaisyhteiskunta" [climate repair and civil society] panel discussion (in Finnish), with Ilona Mettiäinen and Operaatio Arktis https://www.youtube.com/watch?v=fqd7heN3yKo
- New Scientist article: Engineering firms explore plan to slow melting of Greenland glacier by Rowan Hooper https://www.newscientist.com/article/2343633-engineering-firms-explore-plan-to-slow-melting-of-greenland-glacier/
- Lapin Kansa, article: Tutkijat ovat kehittäneet uuden menetelmän Grönlannin jääpeitteen säilymiselle. https://www.lapinkansa.fi/tutkijat-ovat-kehittaneet-uuden-menetelman-gronlan/5042761
- Radio talk in German – geoengineering. https://www.deutschlandfunk.de/geoengineering-koennen-unterwasservorhaenge-die-gletscherschmelze-verlangsamen-dlf-565b5267-100.html
- Article in German - Geoengineering. https://www.riffreporter.de/de/umwelt/klimakrise-gletscher-eisberg-meeresspiegelanstieg-vorhang-im-meer-geoengineering

- Saving Antarctica's Ice – Discussion with John Moore, Mette Spenser, David Wadhams and Paul Beckwith. https://www.uarctic.org/activities/thematic-networks/frozen-arctic-conservation/

Activities 2023

Completed:

Participation/scripting in UArctic video on Arctic tipping points

Funding application for GRISCO2 / Nordic Council of Minister's Arctic Cooperation Programme with University of Greenland and University of Copenhagen

March 7: meeting at Investec, London with potential funders for frozen Arctic conservation research.

March 14: panel discussion by the Prime Minister's Office of Finland on the future of the Arctic (Ilona Mettiäinen as a comment speaker)

March 24: Can we cool a warming world? Panel discussion by Cambridge Zero (Ilona Mettiäinen, Hugh Hunt, Shaun Fitzgerald, Alice Wells, Antoinette Nestor) https://www.festival.cam.ac.uk/events/can-we-cool-warming-world

On-going:

Participation in UArctic action on evaluating all proposals for Arctic interventions - contract with GRID Arendal

Funding application with GRID to Norwegian Arctic research program

Funding application for the Ilulissat Youth Science-Art exhibition tour

Collaboration with Hokkaido University on simulation of seabed curtain ice sheet conservation ocean circulation

Collaboration with Dartmouth on Greenland glacier simulations under seabed curtain ice sheet conservation ocean circulation

Publication in PNAS Nexus of 2 articles on seabed curtains

Making two 5 minute videos on seabed anchored curtains in Greenland and Antarctica

2023 planned activities:

June: presentation/participation at Antarctic Treaty Consultative Parties meeting in Helsinki Timo Koivurova and John Moore

August/September: funded workshop at Chicago on ice sheet interventions

Bringing the Ilulissat Youth-Science Art exhibition to Arktikum, Finland, including opening event; preparing a larger tour

Fall: Phase 2 of UArctic evaluation of Arctic interventions - report and workshop

September-October: GRISCO fieldwork (3rd phase) with communities in Greenland

October: Youth/indigenous panel at ACA on Arctic interventions

November: Session at Arctic Spirit conference on ice sheet conservation and other Arctic climate interventions

Articles on ice sheet monetization & cryospheric services concepts and the public acceptability of ice sheet conservation in Ilulissat, Greenland