



Stockholm
University

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

March 2023

[Click here to view the newsletter in your web browser](#)

Bolin Centre Newsletter # 3

Dear Bolin Centre members,

Even if the winter lingers, the warmth and long-awaited spring will come soon. When your thermometer outside is still below zero, it's getting really hot with the events and the processes we've undertaken and committed to this spring.

In the Bolin Centre, we have finalized and the board has adopted the Strategic Plan for 2023–2027, which will be published on our website shortly.

Bolin's Climate Lecturer 2023 was chosen and we are pleased to announce that the lecture this year will be given by Professor Trude Storelvmo from the University of Oslo on the 24th of May.

We have restructured the Research Themes mailing lists to match our current structure and to facilitate internal communication.

We have started the process of announcing postdocs and assessed the need to hire a communicator.

Please, have a look at the calendar of upcoming events and save the dates.

We will continue to inform you of the latest news in our monthly Newsletter.

We strive to make the Newsletter a valuable source of information, inspiration and research exchange, but we need your help. Don't forget to share information you want us to publish in the upcoming Newsletter, send it to bolin@su.se.

NEWS



Photo: Casia Bromberg

Ilona Riipinen receives the Göran Gustafsson Prize in Physics

[Ilona Riipinen, Professor at the Department of Environmental Science](#) and Co-Director of the Bolin Centre for Climate Research, has been awarded the Göran Gustafsson Prize in Physics 2023 “for her pioneering research on atmospheric aerosol particles and their impact on clouds, climate, and human health.”

“For me, it means a lot that I receive the Göran Gustafsson Prize in Physics because I have always seen myself as a physicist at heart, even though my work is interdisciplinary. It sends an important message that Physics can be applied to environmental issues. Physics is a tool that can be used to understand how our future on this planet will look like,” says Riipinen.

[Read more](#)



Sampling on a lake wetland complex in Seida. Photo: Gustaf Hugelius

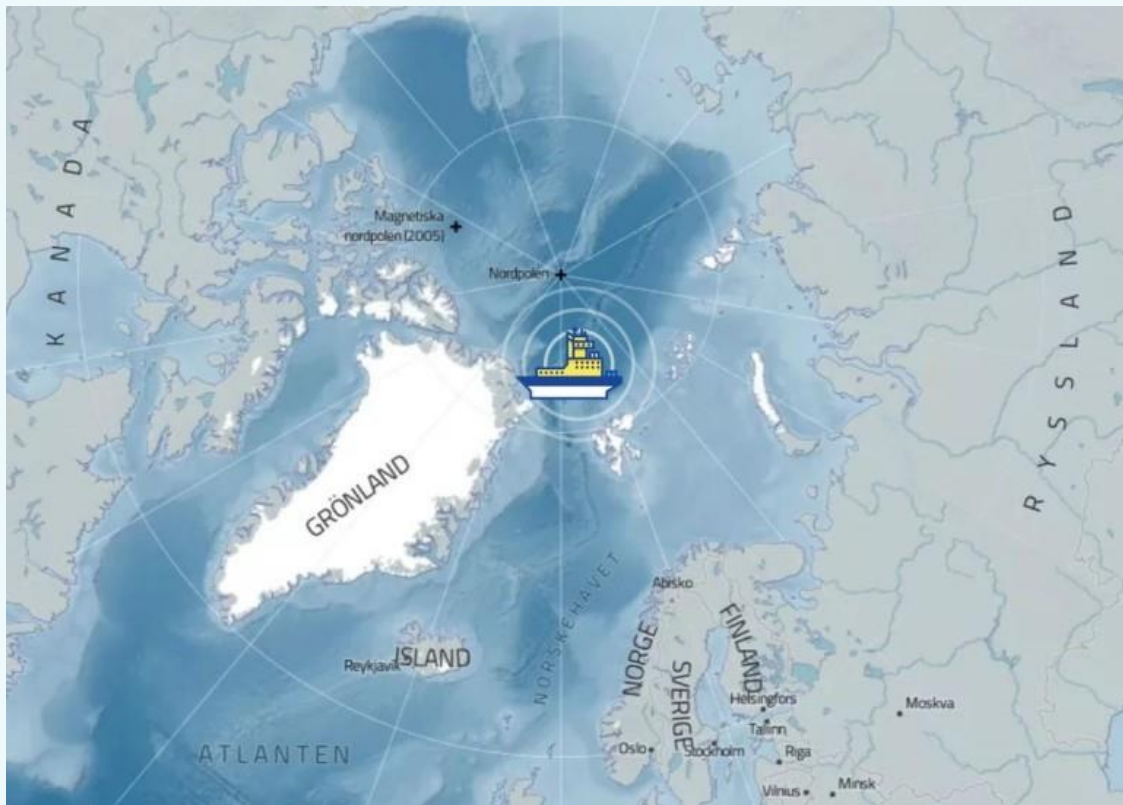
Extensive global wetland loss over the past three centuries

Wetlands are among the most threatened ecosystems in the world. A new study in *Nature* shows that large amounts of wetlands have been lost since the 18th century, but that previous studies have still overestimated the global loss. Unfortunately, Northern Europe, primarily Sweden and Finland, stands out as the area with the greatest loss of forested peatlands. It is also the wetlands that have bound the largest layer of atmospheric carbon dioxide.

The study "Extensive global wetland loss over the past three centuries" is published in the scientific journal *Nature*, DOI: [10.1038/s41586-022-05572-6](https://doi.org/10.1038/s41586-022-05572-6)

[Read the Swedish article on Stockholm University's website about this new study.](#)

[Read more](#)



Map of the target area for the expedition ARTofMELT2023 Source: Mapbox/The Swedish Polar Research Secretariat

ARTofMELT2023 expedition will study the arrival of summer in the Arctic

The fast-changing Arctic climate is determined by a balance between heat imported from the south, most of it in the atmosphere, and energy lost to space by radiation at the top of the Arctic atmosphere. In May the expedition ARTofMELT2023 (Atmospheric Rivers and the Onset of Sea Ice Melt 2023), led by researchers from Stockholm University, is embarking on a research expedition to the central Arctic Ocean. The aim is to gather unique observations of the processes that govern the transition from winter to summer in the high Arctic. The time when the Arctic ice starts melting.

[Read more](#)



The Maldives Climate Observatory Hanimadhoo. Photo: August Andersson

Sources of polluting particles differ between winter and summer over the Indian Ocean

Uncovering the sources of major air pollutants, such as black carbon (BC), is important for understanding their impact on climate. A new study by researchers at the Department of Environmental Science [published in Proceedings of the National Academy of Sciences \(PNAS\)](#) shows that the sources of BC found over the Indian Ocean differ between winter and summer. This finding may have implications for the monsoon buildup as well as ecosystems and agriculture.

[Read more](#)

Essential research findings to support decision-making in a critical decade

Each year, leading scientists from around the world invites to review the most pressing findings in climate change-related research. Summarized into 10 concise insights, the result has always been a rich and valuable synthesis for policy and society at large.

This year, the authors emphasize and unpack the complex interactions between climate change and other drivers of risk, such as conflicts, pandemics, food crises and underlying

development challenges. The 10 New Insights in Climate Science responds to clear calls for policy guidance during this climate-critical decade.

[Read more](#)



Tarfala New Moon, Photo: SU

Tarfala News

**New collaboration with STF
Kebnekaise Mountain Station** [Read
more](#)

Summer staff at TRS – [Available jobs](#)

Researchers and courses: [Read more
and book your visit](#)

[To the newsletter](#)



Photo: Niklas Björling

Congratulations, Gustaf!

Gustaf Hugelius is promoted to
professor in geographic information

systems (GIS) and geomatics with applications in natural geography from 2023-03-02.

COLLABORATION

The Statistical Research Group provides support to scientists

The Statistical research group (Statistiska forskningsgruppen, SFG) at the Department of Mathematics has for many years provided statistical support to PhD students and researchers. This activity is a Core facility of the Faculty of Science at Stockholm University which means that master students, PhD students and researchers associated with the faculty are offered statistical consultation free of charge.

To apply for consultation, contact SFG's director Jan-Olov Persson by e-mail, sfg@math.su.se.

[You can find more information about SFG here](#)

OPPORTUNITIES

University of Oulu – Open positions. Multidisciplinary recruitment

- [Tenure Track Assistant or Associate Professor or Full Professor in Spatial Resilience Research Methods](#)
- [Tenure Track Assistant or Associate Professor or Full Professor in Socio-ecological Resilience](#)
- [Tenure Track Assistant or Associate Professor or Full Professor in Resilient Organizations and Business Networks](#)
- [Tenure Track Assistant or Associate Professor or Full Professor in Resilience, Resistance, and Reconciliation](#)

[More positions](#)

FORMAS call: Links between climate, water and biodiversity

The purpose of this call is to increase the knowledge about links between climate, water and biodiversity, as well as to support research-based and holistic approaches to addressing challenges in these three areas. The call is expected to lead to an increased ability in society for science-based decision making and for implementing measures designed with regard to climate, water and biodiversity. The projects funded in this call must clearly focus on the connections between all three areas.

[Read more here](#)

Sigrid Arrhenius scholarship fund at the Faculty of Science at Stockholm University

[The scholarship is awarded as economic support to promising researchers at the Faculty of Science at Stockholm University. The recipient of the scholarship is expected to obtain a PhD degree and is working on a PhD thesis in one of the following subject areas – PHYSICS, CHEMISTRY, MATHEMATICS, ASTRONOMY, GEOLOGY or METEOROLOGY.](#)

The PhD thesis is expected to be defended during 2023 or 2024. The applicant must not have defended the thesis before the end of the application period. A scholarship amounting to **80.000 kronor** will be awarded.

[Apply here](#) no later than **March 15, 2023**.

2023 International Scientific Fellowship Program for master, PhD & medical students

Identifying outstanding scientific talents & breakthrough research topics in the life sciences, and providing unique opportunities for **collaboration in science**.

The fellowships which foster an interdisciplinary & collaborative mindset in the next generation of scientific leaders

[Read more and apply here](#)

CALENDAR – BOLIN CENTRE'S EVENTS

15

MARCH

Climate and Environmental History Seminar: The Birth of the Black Death

Time: 15.00 – 17.00

Venue: Department of History, Zoom
Biology, Ecology and Climate in Tian Shan in the Early Fourteenth Century. Philip Slavin, University of Stirling, presents at the seminar. In collaboration with the Medieval Seminar.

[More information and registration](#)

23

MARCH

Seminar: IPCC AR6 Synthesis Report 2023

Time: 14.00 – 16:30

Venue: Geoscience House and Zoom
Presentation and discussion of the results and IPCC's impact in the negotiations and in society
More information and registration will come soon.

10

MAY

Klimat- och miljöhistoriska seminariet: Skogen i arkivet/skogen som arkiv

Time: 15.00 – 17.00

Venue: Department of History, Zoom
En kulturvetenskaplig dialog med utgångspunkt i Nordiska museets samlingar. Lotten Gustafsson Reinius, Stockholms universitet och Flora Bartlett, Nordiska museet, presenterar på Klimat- och miljöhistoriska seminariet.

[Läs mer](#)

24

MAY

Bert Bolin Climate Lecture 2023 (Save the date)

Place: Aula Magna and Zoom
More information will come

Registration will open shortly.

31

MAY

Climate and Environmental History and Early Modern History Seminars: Challenging Maps

Time: 15.00 – 17.00

Venue: Department of History, Zoom

Migrating Goths, Unstable Ice, and Cartographic Bridges over the Northern Seas, 1540–1610. The Climate and Environmental History seminar in collaboration with the Early Modern History Seminar welcomes Pierre Salvadori, Sorbonne Université.

[More information and registration](#)

[To Bolin Centre calendar](#) →

PARTNERS' EVENTS

17 – 18

APRIL

Developing Sustainable Cities: Climate and Health A two-day research workshop in Stockholm

The workshops will run concurrent sessions focussing on each of the following themes relating to climate and health in urban settings.

Mental health: Safety; Risk management; Crisis preparedness.

Sustainable transportation: Environmental impact; Health impact.

Digital tools: Decision making; Monitoring; Preparedness; Healthcare accessibility.

Communicable diseases

Urban systems: Energy; Consumption; Food; Nature-based resources / biodiversity.

You can [register your interest online](#) before 17 March 2023.

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MAY

FLOW physics for climate program, Nordita 2023, Stockholm

The four weeks program is centered around the following themes:

- Geophysical fluid dynamics, convection, ice melting and ocean mixing (weeks 1-2)
- Data-driven investigation of climate and weather (week 3)
- Aerosols and clouds (week 4)

A web page with further information and with the application/registration form for the program is available:

<https://indico.fysik.su.se/event/7913/>

The deadline for registration is 5th of March.

Geert Brethouwer (contact person: geert@mech.kth.se),
FLOW, KTH, Stockholm, Sweden

11 - 12

OCTOBER

SAVE THE DATE for the 2023 transdisciplinary conference on connecting health and climate change

The transdisciplinary conference brings together researchers, experts and policymakers at the intersection between health and climate change. It provides an arena to discuss climate change effects on health, potential societal consequences, and opportunities for adaptation. We specifically solicit talks related to health impacts of environmental and occupational heat stress, as well as indirect health impacts of climate change, such as those arising from increased wildfire risk and infectious diseases.

WHEN: 11-12 October 2023

WHERE: Stockholm, Sweden

DEADLINE FOR ABSTRACTS: 15 April 2023

Follow enbel-project.eu for updates - more information will be made available soon

Bolin Centre scientists in media

Klimatförändringarna med högre temperatur har lett till fler synliga effekter i Stockholm. En av dem är de allt kraftigare skyfallen, som leder till översvämning och hotar den viktiga dricksvattentäkten Mälaren – och frestar på de gamla avloppssystemen. – "Avloppssystemen är gamla och inte anpassade efter dagens klimat", säger klimatprofessorn Thorsten Mauritsen.

[Look the whole interview in Swedish](#)



Photo: SVT

PUBLICATIONS

Bolin Centre publications

On bolin.su.se/publications you'll find a list of scientific journal publications by Bolin Centre scientists.

Here are some of the latest:

- Murto, S., L. Papritz, G. Messori, R. Caballero, G. Svensson and H. Wernli (2023): Extreme surface energy budget anomalies in the high Arctic in winter. *J. Climate*, early online release, <https://doi.org/10.1175/JCLI-D-22-0209.1>
- Hadas, O., Datseris, G., Blanco, J., Bony, S., Caballero, R., Stevens, B., Kaspi, Y., 2023. The role of baroclinic activity in controlling Earth's albedo in the present and future climates. *Proc. Natl. Acad. Sci. USA*, 120, e2208778120. <https://www.pnas.org/doi/10.1073/pnas.2208778120>
- Wood, H., & Cousins, S. A. O., 2023. Variability in bat morphology is influenced by temperature and forest cover and their interactions. *Ecology and Evolution*: 13, e9695. <https://doi.org/10.1002/ece3.9695>
- McCoy, I. L., McCoy, D. T., Wood, R., Zuidema, P., Bender, F. A.-M., 2023. The role of mesoscale cloud morphology in the shortwave cloud feedback. *Geophys. Res. Lett.*: <https://agupubs.onlinelibrary.wiley.com/doi/10.1029/2022GL101042>
- Kuma, P., Bender, F. A.-M., Schuddeboom, A., McDonald, A. J., and Seland, Ø., 2013. Machine learning of cloud types in satellite observations and climate models, *Atmos. Chem. Phys.*: 23, 523–549. <https://doi.org/10.5194/acp-23-523-2023>
- Kylander, M.E., Martínez-Cortizas, A., Sjöström, J.K., Gåling, J., Gyllencreutz, R., Bindler, R., Alexanderson, H., Schenk, F., Reinardy, B.T.I, Chandler, B.M.P, and Gallagher, K., 2022. Storm chasing: Tracking Holocene storminess in southern

Sweden using mineral proxies from inland and coastal peat bogs. Quaternary Science Reviews: 299, 107854, ISSN 0277-3791, <https://doi.org/10.1016/j.quascirev.2022.107854>

- Goldfarb, R.J., and Pitcairn, I., 2023. Orogenic gold: is a genetic association with magmatism realistic?. Miner Deposita 58, 5–35. <https://doi.org/10.1007/s00126-022-01146-8>

DATABASE, MODELLING COORDINATION, CRS

Bolin Centre Database

On bolin.su.se/data you'll find open access to Climate and Earth System Data

UPCOMING EVENT: Lunch seminar

The new publishing platform Dynamica and why you want to use it

Date: 14 March 2023, 12.00 PM – 14 March 2023, 1.00 PM

Venue: Frescati Library, entrance floor and online via Zoom

In Dynamica, researchers at Stockholm University can publish articles open access with a CC BY license.

<https://www.su.se/stockholm-university-library/calendar/lunch-seminar-the-new-publishing-platform-dynamica-and-why-you-want-to-use-it-1.648164>

The articles are peer-reviewed openly in the same platform. The aim is to offer an alternative publishing route instead of via the commercial publishers. Now, the developing team are looking for researchers at Stockholm University who wish to contribute to the development of the platform, by submitting articles and give feedback for improvement.

This event is primarily aimed at researchers and PhD students at Stockholm University, but everyone is welcome to participate.

Revitalization of the Climate Research School (CRS)

The Bolin Center's will continue to develop an active community of ECRs through the Climate Research School (CRS) in 2023.

Some activities are planned for the spring and will be announced shortly.

For more information contact the coordinator of the Climate Research School: Carmen Prieto (carmen.prieto@natgeo.su.se)

Promotional material

If you need promotional material with Bolin Centre's logos for your field trip or work, let us know. We have T-shirts, bags and buffs and some hoodies in limited sizes. Contact Maria Basova bolin@su.se with the request.

The Bolin Centre Newsletter provides you with a selection of our current activities and latest news and is sent to all members of the Bolin Centre.

If you have suggestions that you would like to include or research that you would like to share in coming Newsletters, please contact bolin@su.se.

Please note that the frequency of the newsletter is approximately once a month.

Editor: Maria Basova (Coordination)

Bolin Centre for Climate Research

Contact: bolin@su.se

SOCIAL MEDIA

