



Stockholm  
University

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 45, 2021

[Click here to read the letter in your browser](#)

The Bolin Centre is a multi-disciplinary consortium of over 400 scientists in Sweden that conducts research and graduate education related to the Earth's climate.



### The Bolin Days 2021 schedule is published

The Bolin Days are getting closer and we have just published the schedule for this 2 day event. So far we have 190 registered attendees, of which 163 will be present on site, and 27 online. If you have any questions, please mail [bolin@su.se](mailto:bolin@su.se)

[You can find the schedule on the Bolin website »](#)

Welcome!



### Activities during COP26

Since the 31th of October, the Bolin Centre has been present in Kulturhuset Stadsteatern in a COP26 hub. We have livestreamed the program of the Cryosphere Pavilion in Glasgow, and tried to engage with a wider audience. Big thanks to all Bolin Centre members who joined the hub! The hub closes on Friday.

On 3-5 November, Gustaf Hugelius and colleagues presented research on permafrost, peatlands and climate change in the Cryosphere Pavilion in Glasgow.

[Link to the Cryosphere Pavilion schedule »](#)

[Link to filmed sessions »](#)

On 5 November, Gustaf Hugelius also gave a talk in the Nordic Council of Ministers Pavilion. Gustaf presented the Arctic Council's policy recommendations in a session on restoration of wetlands, together with ministers from Scotland and Finland.

[Link to filmed session »](#)



### Mountain and Polar Groups Seek Urgent COP-26 Decision

Mountain and polar groups at COP26, including the Bolin Centre are calling for more consideration of the dire global impacts that will result should governments not take greater action as the climate talks in Glasgow begin their second and final week.

These research, environmental and indigenous organizations span the entire global "cryosphere" (snow and ice regions), from the poles to the high mountain Asia "Third Pole." They believe that the real implications of this science for climate goals remain so poorly understood by governments, that an entire day should be devoted to their impacts, especially as regards thresholds and tipping points.

[Read the article on the Bolin website »](#)

---



### Earth orbit variations effect on climates and biomes during one major climate transition

By comparing the results of simulations of the climate of the Eocene and Oligocene epochs, describing different configurations of the Earth's orbit, a study published in the journal *Science Advances*, shows the role of these orbital variations in the ancient climate variability and their influence on the vegetation cover. Scientists from IPGP, CEREGE, CNRS, University of Paris and their colleagues identify major environmental changes in tropical areas and along certain dispersal corridors, which may have had an implication in the migration of fauna at the time. Bolin Centre researcher Natasha Barbolini is co-author in the study.

[Read article on the Department of Ecology, Environment and Plant Sciences' website »](#)

---



### FORCeS: Towards narrowing uncertainty of aerosol forcing on climate

On a crisp morning in October 2019, some of Europe's most prominent climate scientists gathered inside Geovetenskapens hus at Frescati Campus, Stockholm University, to attend the inaugural meeting about FORCeS (Constrained Aerosol Forcing for Improved Climate Projections).

Two years on and the project output is already impressive: an efficient internal communication workflow coupled with over 30 scientific articles. In addition, the consortium has published their first policy brief on whether there is conflict between air quality- and climate goals, and a second one focusing on the Covid19 pandemic and climate is due for publication on November 9th 2021.

[Read the article on Stockholm University's website »](#)

---



### Bolin Centre Seminar Series | Research Area 3

**Title:** Freshwater salinisation – drivers and impacts in river basins around the world

**Speaker:** Josefin Thorslund, researcher in hydrology at the Department of Physical Geography

**Time:** 15 November 2021, 2.00 PM - 3.00 PM

**Venue:** William Olsson and Zoom <https://stockholmuniversity.zoom.us/j/69256695187>

Without reliable access to water resources, basic human needs are not fulfilled and sustainable development is hindered. Freshwater salinisation is a growing water quality problem, which could strongly affect water scarcity and sectoral water use. Although a recognized issue, cross-regional assessments of freshwater salinity status, changes and critical drivers have largely been lacking.

In this seminar, Josefin will share some ongoing research on this topic, addressing both inland drivers of freshwater salinisation and the impact of salinity of both surface and groundwater resources for irrigation water use and water scarcity quantifications. She will present a new open global salinity database, compiled from monitoring data of both surface water (rivers, lakes/reservoirs) and groundwater locations over the period 1980–2019 and illustrate its usage for evaluating salinity levels and trends in river basins worldwide.

[Read more on the Bolin Centre website »](#)

---

### Data management Q&A: Earth and environmental sciences

Do you have questions about data management, FAIR and open research data? Welcome to our online question time sessions focusing on different research areas. On this occasion, we will cover research data in earth and environmental sciences.

**Time:** 24 Nov, 11h00-12h00

[More information and link here »](#)

Questions will be answered by domain specialists and research data advisers of the Swedish National Data Service (SND). The domain specialists are a national resource in a number of different disciplines and support researchers and others working with research data at universities or other research performing organizations.

[Read more about SND here »](#)

The Q&A session will be held in English.

---



Publications

#### Recent Bolin Centre publications

On [bolin.su.se/publications](https://bolin.su.se/publications) you'll find a list of scientific journal publications by Bolin Centre scientists. Here are the most recent ones we have published on the website.

- Orellana, M.V.; Hansell, D.A.; Matrai, P.A.; Leck, C. Marine Polymer-Gels' Relevance in the Atmosphere as Aerosols and CCN. *Gels* 2021, 7, 185. <https://doi.org/10.3390/gels7040185>
- Lawler, M. J., Saltzman, E. S., Karlsson, L., Zieger, P., Salter, M., Baccharini, A., Schmale, J. and Leck, C. (2021). New insights into the composition and origins of ultrafine aerosol in the summertime high Arctic. *Geophysical Research Letters*, 48, e2021GL094395. <https://doi.org/10.1029/2021GL094395>
- Katrantsiotis, K., Norström, E., Smittenberg, R.H., Salonen, J.S., Plikk, A., and Helmens, K., 2021. Seasonal variability in temperature trends and atmospheric circulation systems during the Eemian (Last Interglacial) based on n-alkanes hydrogen isotopes from Northern Finland. *Quaternary Science Reviews*: 273, 107250. <https://doi.org/10.1016/j.quascirev.2021.107250>
- Filippelli, G., Beal, L., Rajaram, H., AghaKouchak, A., Balikhin, M. A., Destouni, G., East, A., Faccenna, C., Florindo, F., Frost, C., Griffies, S., Huber, M., Lugaz, N., Manighetti, I., Montesi, L., Pirenne, B., Raymond, P., Salous, S., Schildgen, T., Trumbore, S., Wyssession, M., Xenopoulos, M., Zhanget, M., 2021. Geoscientists, who have documented the rapid and accelerating climate crisis for decades, are now pleading for immediate collective action. *Geophysical Research Letters*: 48, e2021GL096644. <https://doi.org/10.1029/2021GL096644>
- Revell, L.E., Kuma, P., Le Ru, E.C., Somerville, W.R.C., Gaw, S., 2021. Direct radiative effects of airborne microplastics. *Nature*: 598, pages 462–467. <https://www.nature.com/articles/s41586-021-03864-x>
- Mas e Braga, M., Jones, R.S., Newall, J.C.H., Rogozhina, I., Andersen, J.L., Lifton, N.A., Stroeven, A.P., 2021. Nunataks as barriers to ice flow: implications for palaeo ice sheet reconstructions. *The Cryosphere*: 15, 4929–4947. <https://tc.copernicus.org/articles/15/4929/2021/tc-15-4929-2021.html>
- Larsson, S.A. & Wastegård, S., 2021. A high-resolution Lateglacial–Early Holocene tephrostratigraphy from southernmost Sweden with comments on the Borrobol–Penifiler tephra complex. *Quaternary Geochronology*. [doi:10.1016/j.quageo.2021.101239](https://doi.org/10.1016/j.quageo.2021.101239)
- Hamm, A. and Frampton, A., 2021. Impact of lateral groundwater flow on hydrothermal conditions of the active layer in a high-Arctic hillslope setting, The Cryosphere, 15, 4853–4871. <https://doi.org/10.5194/tc-15-4853-2021>

Please send your newly published publication to [bolin@su.se](mailto:bolin@su.se) »

11

Nov

### RA3 zoom series | Perspectives of Hydrology and Water Resources

**Time:** 11 November 2021, 15h00 - 16h00

**Venue:** Zoom

**Title:** The variability of water storage and fluxes over large tropical river basins from multi-satellite observations and their impacts on the land-ocean continuum

**Speaker:** Fabrice Papa, Institut de Recherche pour le Développement (IRD), LEGOS-France

[Read more on Bolin Centre's website »](#)

11

Nov

### Review seminar: The trend of climate change in the observations

**Time:** Thursday 11 November, 14h15-15h15

**Speaker:** Cheng You, Phd student at MISU

**Location:** Zoom-link: <https://stockholmuniversity.zoom.us/j/69796625579>

See all MISU seminars [here](#) »

15

Nov

### Bolin Centre Seminar Series RA3

**Title:** Freshwater salinisation – drivers and impacts in river basins around the world

**Date:** Monday 15 November

**Time:** 14h00-15h00

**Speaker:** Josefin Thorslund, researcher in hydrology at the Department of Physical Geography

**Location:** William Olsson and Zoom

[Read more on the Bolin Centre website »](#)

16

Nov

### Guest seminar: Mixed-phase clouds from observations and modelling: the role of the seeder-feeder process and secondary ice formation

**Time:** Tuesday 16 November, 11h15-12h15

**Speaker:** Ulrike Lohman, Professor at ETH Zürich

**Location:** Zoom-link <https://stockholmuniversity.zoom.us/j/64964217142>

**Organizer:** Department of Meteorology

16

Nov

### The Rossby Prize Symposium 2020: Ice on Earth – a marker for changes of climate

**Date:** 16 November 2021

**Time:** 13:15-16:30

**Venue:** De Geer Salen, Geovetenskapshus, Stockholm University

Read more and register [on this link](#) »

17

Nov

**Workshop: Wikipedia – a source for information and outreach****Date:** 17 November 2021, 13h00 -15h00**Venue:** William-Olsson lecture hall**Workshop leader:** Olle Terenius, malaria researcher, Uppsala University.**Who can join:** Students in Climate Research School**Deadline for application:** 12 November[Read more and apply »](#)

18-19

Nov

**Bolin Days 2021 in Aula Magna****Date:** 18-19 November, 11h00 - 19h00**Venue:** Aula Magna & via Zoom[Read more and see program on the Bolin Centre website »](#)

18

Nov

**Review seminar: Sensing internal tides from space****Time:** Thursday 18 November, 14h15-15h15**Speaker:** Gaspard Geoffroy, PhD student at MISU**Location:** Zoom-link <https://stockholmuniversity.zoom.us/j/66347942032>

23

Nov

**Halftime seminar: The effect of climate and landscape change on bat populations****Time:** Tuesday 23 November 14h00**Location:** DeGreer and zoom <https://stockholmuniversity.zoom.us/j/64105879144#success>**Speaker:** Heather Wood, PhD student at Department of Natural Geography

7

Dec

**Bolin Centre Seminar Series RA7****Speaker:** Roland Jansson, professor at the Department of Ecology and Environmental Science, Umeå University**Time:** 7 December, 14h00-15h00

More info will follow!

**OFFICE STAFF - BOLIN CENTRE AT CAMPUS**

Due to COVID-19, the Bolin Centre Office will be irregularly staffed at the University. Like many of you, we work from home. Don't hesitate to get in touch with us via mobile or e-mail.

- Magnus: 076-695 70 78, [magnus.atterfors@su.se](mailto:magnus.atterfors@su.se) (Communications)
- Laila: 072-444 35 25 [laila.islamovic@su.se](mailto:laila.islamovic@su.se) (Communications & coordination)
- Annika: 072-148 91 49 [annika.granebeck@su.se](mailto:annika.granebeck@su.se) (Coordination)

The **Bolin Centre Weekly News** 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 Weekly News, please contact [bolin@su.se](mailto:bolin@su.se).

Editor: Magnus Atterfors

Photo: Martin Jakobsson, Niels Meijer, Stella Papadopoulou

**Stay updated**Find news and upcoming events at [bolin.su.se](http://bolin.su.se) and follow us on [Twitter](#), [Facebook](#) and [YouTube](#).