

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 45, 2020

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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.



Bolin Days 2020 Nov 25-26, Registration is open

The Bolin Days this year will be virtual. We offer cross-disciplinary sessions organized by our Research Area leaders, a digital poster sessions, talks by the External Science Advisory Groups, virtual meeting rooms and much more. Please $\underline{\text{register here}}$ ».

Call for posters

For masters and PhD Students who participate in the poster competition, we offer the opportunity to record your presentation together with Mediaproduktion, a Stockholm University service unit, on **November 10**. Please book the entire day for this and note in **your registration for the Bolin Days** that you will participate. You can also record your presentation at home, with your cellphone or other equipment.

Submission deadline for posters and self-made prerecorded presentations is November 17 at 23h59.

Bolin Centre Mentoring System - sign up for this year's round of mentorship pairings!

The Bolin Mentoring System was introduced in 2014 as tool for supporting researchers across the Bolin Centre. This initiative links interested senior and junior scientists in a mentor-mentee relationship. A junior scientist in this regard is anyone who feels the need for mentoring by someone more senior. As a mentee you state your mentor preferences such as discipline, gender, language requirement, seniority, etc. and we do our best to meet these requests from our pool of mentors.

Register here for the program»

Deadline: December 1st.

Read more about the program»



New Policy Brief: Making an educated decision about Carbon offsetting

The Bolin Centre Climate Arena just published its second Policy Brief, available in English as well as Swedish, titled "Making an educated decision about Carbon offsetting".

The function of this policy brief is multifaceted, it provides you as a policy-maker with the information needed to navigate decisions on policies concerning carbon offsetting. If you are a decision maker, it can aid you in your effort to reduce the carbon footprint of your organization or business. It can also help you as an individual in deciding on actions, such as compensating for a flight

You can find the policy brief on our website under the <u>Climate Arena tab</u>», or you can click <u>here for the English version</u>», or <u>here for the Swedish version</u>».

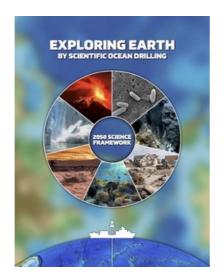


New datasets in the Bolin Centre Database

Michael Lawler, Armando Vilchez, Eric Saltzman (2020). Submicron aerosol methanesulfonate, iodide, iodate and sulfate data from the Arctic Ocean 2018 expedition. Dataset version 3.0. Bolin Centre Database. https://doi.org/10.17043/ao2018-submicron-aerosol-anions-3»

Luigi Piemontese (2020). Global social-ecological regions with potential for crop production increase with water harvesting. Dataset version 1.0. Bolin Centre Database. https://doi.org/10.17043/piemontese-2020»

Audrey Campeau, Anne Sørensen, Tonu Martma, Staffan Åkerblom, Christian Zdanowicz (2020). Water chemistry and geospatial characteristics of different sub-catchments in the Mackenzie River basin, Canada. Dataset version 1.0. Bolin Centre Database. https://doi.org/10.17043/campeau-2020»



Exploring Earth by scientific ocean drilling: 2050 scientific framework

The new 2050 Science Framework for Scientific Ocean Drilling guides multidisciplinary subseafloor research into the interconnected processes that characterize the complex Earth system and shape our planet's future. The 2050 Science Framework has a 25-year outlook, inspiring state-of-the-art approaches for scientific ocean drilling far into the mid-21st century.

Bolin Centre scientist Matt O'Regan played a leading role in the production of the 2050 Science Framework, publiced on the International Ocean Discovery Program's (IODP) website».

Read more on the Bolin website».

Research project grants and starting grants from Swedish Research Council

The Swedish Research Council has decided on the applications to be awarded grants within Natural and engineering sciences 2020. The total grant amount for 2020-2024 is more than 1,1 billion SEK. Several Bolin Centre scientists received grants. Congratulations!

- August Andersson, Dep't of Environmental Sciences
- Agatha de Boer, Dep't of Geological Sciences
- Annica Ekman, Dep't of Meteorology
- Claudia Mohr, Dep't of Environmental Sciences
- Johan Nilsson, Dep't of Meteorology
- Gunilla Svensson, Dep't of Meteorology
- Matt O'Regan, Dep't of Geological Sciences
- Stefano Manzoni, Dep't of Physical Geography

Read more on Swedish Research Council's website»



Recent Bolin Centre scientist publications

On 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.

- Ferreira C.S., Mourato S., Kasanin-Grubin M., Ferreira A.J.D., Destouni, G., Kalantari Z., 2020. Effectiveness of Nature-Based Solutions in Mitigating Flood Hazard in a Mediterranean Peri-Urban Catchment, Water: 12(10), 2893. https://doi.org/10.3390/w12102893
- Sedlar, J., M. Tjernström, J. Cassano, X. Fettweis, I. Hebestadt, G. Heinemann, A. Orr, T. Phillips, A. Rinke, M. Seefeldt, A. Solomon, 2020. Confronting Arctic troposphere and surface energy budget representations in regional climate models with observations. Journal of Geophysical Research: 125, http://dx.doi.org/10.1029/2019JD031783
- Jakobsson, M., Mayer, L.A., Nilsson, J., Stranne, C., Calder, B., O'Regan, M., Farrell, J.W., Cronin, T.M., Brüchert, V., Chawarski, J., Eriksson, B., Fredriksson, J., Gemery, L., Glueder, A., Holmes, F.A., Jerram, K., Kirchner, N., Mix, A., Muchowski, J., Prakash, A., Reilly, B., Thornton, B., Ulfsbo A., Weidner, E., Åkesson, E., Handl, T., Ståhl, E., Boze, L-G., Reed, S., West, G., & Padman, J., 2020. Ryder Glacier in northwest Greenland is shielded from warm Atlantic water by a bathymetric sill. Commun Earth Environ: 1, 45. https://doi.org/10.1038/s43247-020-00043-0
- Inglis, G. N., Bragg, F., Burls, N. J., Cramwinckel, M. J., Evans, D., Foster, G. L., Huber, M., Lunt, D. J., Siler, N., Steinig, S., Tierney, J. E., Wilkinson, R., Anagnostou, E., de Boer, A. M., Dunkley Jones, T., Edgar, K. M., Hollis, C. J., Hutchinson, D. K., and Pancost, R. D., 2020. Global mean surface temperature and climate sensitivity of the early Eocene Climatic Optimum (EECO), Paleocene–Eocene Thermal Maximum (PETM), and latest Paleocene, Clim. Past, 16, 1953–1968. https://doi.org/10.5194/cp-16-1953-2020
- De Luca, P., Messori, G., Faranda, D., Ward, P. J., Comou, D., 2020. Compound warm-dry and cold-wet events over the Mediterranean. Earth Sys. Dyn. doi: 10.5194/esd-11-793-2020

- 107 Messori, G., Ryota, W., Woods, C., 2020. A spatial model for return values of warm extremes in the high Arctic. Q. J. R. Meteorol. Soc. <u>doi:</u> 10.1002/qi.3877
- Pons, F. M. E., Messori, G., Alvarez-Castro, M. C., Faranda, D., 2020. Sampling hyperspheres via extreme value theory: implications for measuring attractor dimensions. J. Stat. Phys. doi: 10.1007/s10955-020-02573-5

Please send your newly published publication to bolin@su.se.

New article: Ryder Glacier in northwest Greenland is shielded from warm Atlantic water by a bathymetric sill

Read more on Nature communications earth & environment website»



Swedish-Russian expedition finds new hotspots of methane emissions in Siberian Arctic seabed

Twelve researchers from Stockholm University participate in the ISSS-2020 expedition on board a Russian research vessel to study the link between biogeochemical cycles and climate change. The international research team has recently observed emissions of methane gas from new systems in the Arctic seabed.

Read article on the Bolin website»

Small mussels in the Baltic are getting even smaller

Blue mussels in the Baltic Sea are getting smaller with time but bigger in numbers, according to a new study analyzing data since the 90's.

Read full article on DEEP's website»

BOLIN CENTRE EVENTS

25-26 November

Bolin Days - Registration is open

The Bolin Days will take place in a COVID-19- adjusted format. If you are interested in Climate and the Earth Sciences, you are welcome to join in!

Read more on the Bolin web site»

10 December

Bolin Centre Seminar Series | Research Area 7

Time & venue: Dec 10 at 13h00, Zoom **Titel:** Reversing tropical deforestation

Speaker: Eric Lambin, geographer and environmental scientist at

University of Louvain and Stanford University.

Read more on the Bolin web site»

OTHER EVENTS AND INFORMATION



Conference EcoChange 2020



Time & venue: 10-26 November

The strategic research programme EcoChange focuses on the effects of climate change on marine ecosystems, particularly in the Baltic Sea. More information on conference web site»

OFFICE STAFF - BOLIN CENTRE AT CAMPUS

Due to COVID-19, the Bolin Centre Office will be irregular 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, <u>magnus.atterfors@su.se</u> (Communications)
- Annika: 072-148 91 49, annika.granebeck@su.se (Coordination)
- Eva: 076-650 03 08, eva.gylfe@su.se (Supports the office part-time during the autumn).

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.

Editor: Magnus Atterfors

Foto: Martin Jakobsson, Alasdair Skelton, Stockholm University

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