



Stockholm
University

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 18, 2021

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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.



New study on lockdown measures, greenhouse gas emissions and quality of life

Together with colleagues at Karolinska Institutet, Bolin Centre scientists Alasdair Skelton and Kevin Noone just published an article titled "Lockdown measures which reduced greenhouse gas emissions with little negative impact on quality of life".

The result of lockdown measures in response to the new Covid-19 virus has been the largest fall ever of greenhouse gas emissions. But which of these measures can be used post-lockdown to sustain at least part of this reduction of emissions?

This exploratory study assessed the change of perceived quality of life among 746 individuals from Stockholm region due to complying to lockdown measures. The associated change of annual per capita greenhouse emissions due to complying to lockdown measures was calculated.

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

Two Bolin Centre scientists on Reuters Hot List of the world's top-1000 climate scientists

Bolin Centre researchers Erik Kjellström and Gia Destouni are on Reuters Hot List of the world's top-1000 climate scientists. The list ranks climate academics according to how influential they are. Erik Kjellström ranks 765 and Gia Destouni ranks 908.

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



Publications

Recent Bolin Centre 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.

- Engström E.R., Collste D., Cornell S.E., Johnson F.E., Carlsen H., Jaramillo F., Finnveden G., Destouni G., Howells M., Weitz N., Palm V., Fuso-Nerini F., Succeeding at home and abroad - Accounting for the international spillovers of cities' SDG actions, NPJ Urban Sustainability, 1:18, 2021. <https://doi.org/10.1038/s42949-020-00002-w>
- Niemi, M., Skelton, A., Noone, K., and Olsson, M.J., 2021. Lockdown measures which reduced greenhouse gas emissions with little negative impact on quality of life. Earth's Future. [doi: 10.1029/2020FF001909](https://doi.org/10.1029/2020FF001909)
- Steinthorsdottir, M., Coxall, H.K., de Boer, A.M., Huber, M., Barbolini, N., Bradshaw, C.D., Burls, N.J., Feakins, S.J., Gasson, E., Henderiks, J., Holbourn, A., Kiel, S., Kohn, M.J., Knorr, G., Kürschner, W.M., Lear, C.H., Liebrand, D., Lunt, D.J., Mörs, T., Pearson, P.N., Pound, M.J., Stoll, H., Strömberg, C.A.E., 2021. The Miocene: the Future of the Past. Paleoclimatology and Paleoclimatology 36, [e2020PA004037](https://doi.org/10.1002/pal.20043).

- Pitcairn, I.K., Leventis, N., Beaudoin, G., Faure, S., Guilmette, C., and Dubé, B., 2021. A metasedimentary source of gold in Archean orogenic gold deposits. *Geology*. <https://doi.org/10.1130/G48587.1>
- Jewson, S., Scher, S., Messori, G., 2021. Decide Now or Wait for the Next Forecast? Testing A Decision Framework Using Real Forecasts and Observations. *Mon Wea. Rev.* <https://journals.ametsoc.org/view/journals/mwre/aop/MWR-D-20-0392.1/MWR-D-20-0392.1.xml>
- Modak, A., & Mauritsen, T., 2021. The 2000-2012 global warming hiatus more likely with a low climate sensitivity. *Geophysical Research Letters*: 48, e2020GL091779. <https://doi.org/10.1029/2020GL091779>

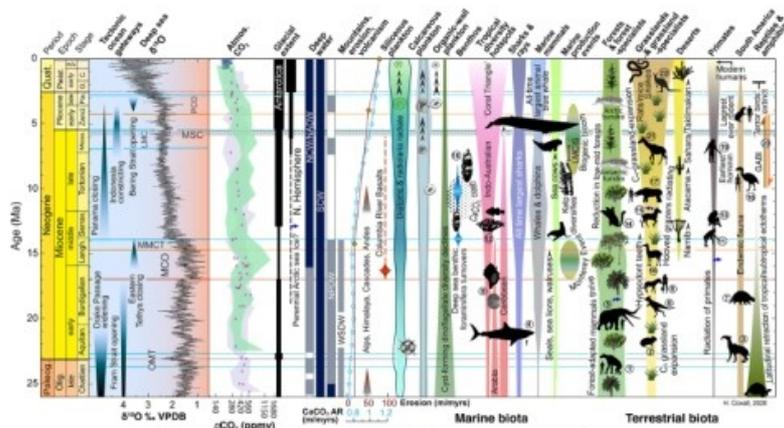
Please send your newly published publication to bolin@su.se »



Welcome to use the data in the newly installed Rossby and Bolin Centre data libraries

The Rossby Centre has a large CMIP model-data library, which is continuously expanded with more datasets. Bolin Centre members outside the Rossby Centre are welcome to access and use this data. The Bolin Centre library contains ERA5 reanalysis data, currently close to 10 years of 6 hourly atmospheric vertically resolved fields.

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



Miocene Temperature Portal launched

On the 26th April 2021, scientists from Bolin Centre Research Area 6 (Deep Time Climates) and international collaborators launched the Miocene Temperature Portal, which allows investigators interested in the Miocene to access and share published proxy temperature records from the marine realm. The portal is now open and ready for use.

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

[Explore the Miocene Temperature Portal »](#)



Bolin Centre Seminar Series | Research Area 4

Time & venue: June 9 at 10h00, Zoom

Title: Protection of Permafrost Soils from Thawing by Increasing Herbivore Density

Speaker: Prof. Christian Beer, Heisenberg-Professor for dynamics of soil processes, Institute of Soil Science, University of Hamburg

Climate change will cause a substantial future greenhouse gas release from warming and thawing permafrost-affected soils to the atmosphere enabling a positive feedback mechanism. Increasing the population density of big herbivores in northern high-latitude ecosystems will increase snow density and hence decrease the insulation strength of snow during winter. As a consequence, theoretically 80% of current permafrost-affected soils (<10 m) is projected to remain until 2100 even when assuming a strong warming using the Representative Concentration Pathway 8.5.

Importantly, permafrost temperature is estimated to remain below -4 °C on average after increasing herbivore population density. Such ecosystem management practices would be therefore theoretically an important additional climate change mitigation strategy. Our results also highlight the importance of new field experiments and observations, and the integration of fauna dynamics into complex Earth System models, in order to reliably project future ecosystem functions and climate.

[Read more »](#)



In media: Nina Kirchner och Per Holmlund i TV4. Följ med under en fältstudie till Mårmaglaciären

Två tredjedelar av ismassan i världens glaciärer tros vara borta vid det här seklets slut. I Sverige försvinner ännu mer om dagens utveckling fortsätter. Lennart Hultman Boye på TV4 följde med en fält-studie till Mårma – en av glaciärerna i området kring Kebnekaise.

[Se klippen på TV4 nyhetssida »](#)

[Read a longer interview with Nina Kirchner, about Tarfala research station and this spring fieldwork season on Stockholm University's website »](#)

Want your research to reach an international audience? Welcome to a workshop with The Conversation

The Conversation publishes scientific news as well as articles with an academic view on current affairs for an international audience, and the European edition alone is read by 38 million people every month. Stockholm University now offers a workshop in collaboration with The Conversation on how to reach out to a broader international audience.

May 10 and 11 Michael Parker, one of the editors from the news desk in London, will host workshops open for any researcher or PhD student at the University, in order to give valuable insight into the process of writing for The Conversation. Parker is membership editor at The Conversation, having previously spent 10 years as a reporter and editor for newspapers and magazines.

This workshop will help academics to think about how to refashion research and expertise into a format more suitable for a general, non-specialist audience.

[Read more and register on Stockholm University's website »](#)

CIVIS summer course on remote sensing

Master and PhD students are welcome to apply a summer school on remote sensing!

This summer school will consist of lectures given by the participant experts on remote sensing techniques applicable to the study of climate and environmental change and related phenomena, and on the other, of using those techniques in practical sessions to perform local studies focused on a different topic each summer school edition. Complimentary activities such as (virtual) visits to institutions or facilities relevant to the course topic are also planned.

Course date: 28 June - 9 July 2021.

Application deadline: 21 May 2021.

[Read more on Civis' website »](#)

BOLIN CENTRE EVENTS

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MAY

Bert Bolin Science Seminar

Time & venue: May 17 at 15h00, Zoom

Titel & abstract: To be announced

Speaker: William F Ruddiman, professor emeritus, Dep. of Environmental Sciences, University of Virginia

[Read more »](#)

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MAY

Bert Bolin Climate Lecture 2021

Time & venue: May 20 at 15h00, Zoom

Titel: For how long have humans affected the climate?

Speaker: William F Ruddiman, professor emeritus, Dep. of Environmental Sciences, University of Virginia

[Read more»](#)

19-21

MAY

Bolincentrums digitala Klimatfestival

Datum och plats: 19-21 maj 2021, digitalt via länk

Vi bjuder in till ett fullspäckat program som sträcker sig över tre dagar. Det blir aktiviteter, föreläsningar och ett livesänt avslut från Campus Frescati den 21 maj som ni garanterat inte vill missa. Välkomna!

[Program och bokning»](#)

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JUNE

Bolin Centre Seminar Series | Research Area 4

Time & venue: June 9 at 10h00, Zoom

Title: Protection of Permafrost Soils from Thawing by Increasing Herbivore Density

Speaker: Prof. Christian Beer, Heisenberg-Professor for dynamics of soil processes, Institute of Soil Science, University of Hamburg

[Read more »](#)

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.

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- Annika: 072-148 91 49, annika.granebeck@su.se (Coordination)
- Laila: laila.islamovic@su.se (Communications & coordination during the spring)
- Eva: 076-650 03 08, eva.gylfe@su.se (Supports the office part-time during the spring)

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, Torben König, privat, Markus Karasti

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