



Stockholm
University

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 10, 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.



New report: AI in the service of the climate

FLOW researcher Ricardo Vinuesa has been one of the 13 researchers interviewed by Vinnova to prepare their report on the future of AI and how it can impact Climate Change.

AI Sweden, RISE and Stockholm Resilience Center have produced the report "AI in the service of the climate". The report will serve as a catalyst for authorities, companies and other stakeholders who are interested in further developing the potential of AI technologies to address the climate challenge. The report, which was funded by Vinnova, introduces a number of AI solutions ranging from climate research and monitoring, to initiatives for emission reductions, climate adaptation, and innovation and transformation.

[Read more on FLOW KTH's website »](#)



New insights on the rarely studied avian Indo-European flyway

Only a few bird species from Western Europe migrate eastward to wintering areas in South Asia, and little is known about this migratory flyway. The common rosefinch has in the past century expanded its breeding range westward to include Western Europe and migrate along this flyway to wintering sites in South Asia. Researchers at the Department of Zoology and the Swedish Museum of Natural History (Robert Stach, Cecilia Kullberg, Sven Jakobsson and Thord Fransson) published the first detailed study of the migratory route of common rosefinches.

[Read more on Department of Zoology's website »](#)



Klimatfestivalen - bokningen öppen!

Nu är bokningen för årets Klimatfestival öppen. Kanske har just du barn i en skolklass som vill lära sig mer om klimatforskning? Hjälp oss gärna att sprida inbjudan till skolor och allmänhet! Vi bjuder in till ett fullspäckat program som sträcker sig över tre dagar. Det blir bokningsbara aktiviteter, föreläsningar och ett livesänt avslut från Campus Frescati den 21 maj. Program och bokningslänkar hittar du [här»](#)



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.

- Kirchner, N., Kuttenkeuler, J., Rosqvist, G., Hancke, M., Granebeck, A., Weckström, J., Weckström, K., Schenk, F., Korhola, A., & Eriksson, P., 2021. A first continuous three-year temperature record from the dimictic arctic-alpine Lake Tarfala, northern Sweden. *Arctic, Antarctic, and Alpine Research*: 69–79. <https://doi.org/10.1080/15230430.2021.1886577>
- Zhang, Q., Berntell, E., Axelsson, J., Chen, J., Han, Z., de Nooijer, W., Lu, Z., Li, Q., Zhang, Q., Wyser, K., and Yang, S., 2021. Simulating the mid-Holocene, last interglacial and mid-Pliocene climate with EC-Earth3-LR, *Geosci. Model Dev.*: 14, 1147–1169, <https://doi.org/10.5194/gmd-14-1147-2021>
- Zhang, Z., Li, X., Guo, C., Otterå, O. H., Nisancioglu, K. H., Tan, N., Contoux, C., Ramstein, G., Feng, R., Otto-Bliesner, B. L., Brady, E., Chandan, D., Peltier, W. R., Baatsen, M. L. J., von der Heydt, A. S., Weiffenbach, J. E., Stepanek, C., Lohmann, G., Zhang, Q., Li, Q., Chandler, M. A., Sohl, L. E., Haywood, A. M., Hunter, S. J., Tindall, J. C., Williams, C., Lunt, D. J., Chan, W.-L., and Abe-Ouchi, A., 2021. Mid-Pliocene Atlantic Meridional Overturning Circulation simulated in PlioMIP2. *Clim. Past*: 17, 529–543. <https://doi.org/10.5194/cp-17-529-2021>
- Chakrawal, A., Herrmann, A.M. and Manzoni, S., 2021. Leveraging energy flows to quantify microbial traits in soils, *Soil Biology and Biochemistry*: 155, 108169. <https://doi.org/10.1016/j.soilbio.2021.108169>
- Zhang, Q., Berntell, E., Li, Q., and Ljungqvist, F. C., 2021. Understanding the variability of the rainfall dipole in West Africa using the EC-Earth last millennium simulation, *Climate Dynamics*. <https://doi.org/10.1007/s00382-021-05696-x>
- Robinson, A.H., Callow, B., Böttner, C., Yilo, N., Provenzano, G., Falcon-Suarez, I., Moreno, H. M., Lichtschlag, A., Bayrakci, G., Gehrman, R., Parkes, L., Roche, B., Saleem, U., Schramm, B., Waage, M., Lavayssière, A., Li, J., Jedari-Eyvazi, F., Sahoo, S., Deusner, C., Kossel, C., Minshull, T., Berndt, C., Bull, J. M., Dean, M., James, R., Chapman, M., Best, A., Buenz, S., Chen, B., Connelly, D., Elger, J., Haeckel, M., Henstock, T., Karstens, J., Macdonald, C., Matter, J., North, L. & Reinardy, B.T.I., 2021. Multiscale characterisation of chimneys/pipes: Fluid escape structures within sedimentary basins. *International Journal of Greenhouse Gas Control*: 106. doi: <https://doi.org/10.1016/j.ijggc.2020.103245>
- Siewert, M.B., Lantuit, H., Richter, A., & Hugelius, G., 2021. Permafrost causes unique fine-scale spatial variability across tundra soils. *Global Biogeochemical Cycles*: 35, e2020GB006659. <https://doi.org/10.1029/2020GB006659>
- Mishra, U., Hugelius, G., Shelev, E., Yang, Y., Strauss, J., Lupachev, A., Harden, J.W., Jastrow, J.D., Ping, C.-P., Riley, W. J., Schuur, E. A. G., Matamala, R., Palmtag, J., Kuhry, P., Treat, C.C., Zubrzycki, S., Hoffmann, F., Elberling, B., Camill, P., Veremeeva, A., Orr, A., 2021. Spatial heterogeneity and environmental predictors of permafrost region soil organic carbon stocks. *Science Advances*: 7, eaaz5236. <https://doi.org/10.1126/sciadv.aaz5236>
- Pérez, L., Correa-Metrio, A., Cohuo, S., González, L., Echeverría-Galindo, P., Brenner, M., Curtis, J., Kutterolf, S., Stockhecke, M., Schenk, F., Bauersachs, T., Schwalb, A., 2021. Ecological turnover in neotropical freshwater and terrestrial communities during episodes of abrupt climate change. *Quaternary Research*: 1–11. <https://doi.org/10.1017/qua.2020.124>
- Steinbach, J., Holmstrand, H., Shcherbakova, K., Kosmach, D., Brüchert, V., Shakhova, N., Salyuk, A., Sapart, C.J., Chernykh, D., Noormets, R., Semiletov, I., and Gustafsson, Ö., 2021. Source apportionment of methane escaping the subsea permafrost system in the outer Eurasian Arctic Shelf. *Proceedings of the National Academy of Sciences*: 118 (10), e2019672118; DOI: 10.1073/pnas.2019672118. <https://www.pnas.org/content/118/10/e2019672118>

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

BOLIN CENTRE EVENTS

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MAR

Workshop | Engineering Mechanics for Climate Research

Time & venue: March 17th, afternoon, Zoom

Welcome to this workshop which aims to create a meeting point between climate research and engineering whilst nourishing a discussion of future cooperation. There will be opportunities for brainstorming to find possible new collaborations and information about funding opportunities will be announced. [Read more »](#)

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MAR

Bolin Centre Seminar Series | Research Area 1

Time & venue: March 30 at 13h00, Zoom

Title: Mid-water hydroacoustics with oceanographic applications

Speaker: Christian Stranne, assistant professor, Dep. of Geological Sciences, Stockholm University

[Read more »](#)

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MAR

Bolin Centre Seminar Series | Research Area 2

Time & venue: March 31 at 14h00, Zoom

Title: Addressing the Arctic cloud problem in regional and global models

Speaker: Gillian Young, Institute for Climate and Atmospheric Science, School of Earth and Environment, University of Leeds, UK

[Read more »](#)

14

April

Bolin Centre Seminar Series | Research Area 5

Time & venue: April 14 at 14h30, Zoom

Title: Global warming, or global cooling, in the last 10000 years?

Speaker: Zhengyu Liu, Professor of Climate Dynamics, Ohio State University

17

MAY

Bert Bolin Science Seminar

Time & venue: May 17 at 15h00, Zoom

Title & abstract: To be announced

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

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MAY

Bert Bolin Climate Lecture 2021

Time & venue: May 20 at 15h00, Zoom

Title: 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

Bolincentrets 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»](#)

18-19

NOV

Bolin Days 2021 - Save the date!

The 12th annual Bolin Days will be held on 18-19 November. Please save the date!

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 (Communications)
- 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, Thord Fransson, Vetenskapens Hus

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