

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 6, 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.





Paul Crutzen - an exceptional researcher

The Nobel laureate Paul Crutzen has passed away. He studied, defended his dissertation and worked with research in meteorology at Stockholm University until the 1970s. In 1995, he was awarded the Nobel Prize in Chemistry for his discoveries about the earth's ozone layer. During his years in Stockholm, Paul Crutzen worked closely alongside Bert Bolin.

Read article on the Bolin website »



Fungus that eats fungus could help coffee farmers

Coffee rust is a parasitic fungus and a big problem for coffee growers around the world. A study in the birthplace of coffee – Ethiopia – shows that another fungus seems to have the capacity to supress the rust outbreaks in this landscape.

"Coffee leaf rust is a fungal disease that is a problem for coffee growers around the world. There is a need to learn more about natural solutions instead of just applying pesticides," says Kristoffer Hylander, professor at the Department of Ecology, Environment and Plant Sciences, Stockholm University.

Read the article on Dep. of Ecology, Environment and Plant Sciences website »

Research places the unusual Swedish summer of 2018 in a climate perspective

Climate researchers from SMHI's Rossby Centre, Stockholm University and Max Planck Institute for Meteorology have studied the probability of another summer resembling the extremely warm Swedish summer of 2018. They confirm, from a historical perspective, this was a very unusual summer. Ongoing climate change has, however, increased the probability of similar summers being experienced.

Read more on Rossby Centre's website »

RA7 seed money 2021

Open call for applications of the 2021 seed money from RA7: landscape processes and climate.

Apply before February 28, 2021!

Read more on the Bolin website »

RA3 seed money 2021

Open call for applications of the 2021 seed money from RA3: Hydrosphere, Cryosphere and Climate
Apply before March 8!

Read more on the Bolin website »

RA5 seed money 2021

RA5 continues an open call for grant proposals on historical to millennium climate variability. Please contact both research area leaders by email (malin.kylander@geo.su.se and frederik.schenk@smhi.se) if you have some ideas or intend to apply.

Visit RA5 on the Bolin web site »



Recent Bolin Centre publications

On <u>bolin.su.se/publications</u>» 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.

Åhlén, I., Vigouroux, G., Destouni, G., Pietroń, J., Ghajarnia, N., Anaya, J.,
Blanco, J., Borja, S., Chalov, S., Chun,K. P., Clerici, N., Desormeaux, A., Girard,
P., Gorelits, O., Hansen, A., Jaramillo, F., Kalantari, Z., Labbaci, A., LiceroVillanueva, L., Livsey, J., Maneas, G., McCurley Pisarello, K. L., Moshir Pahani,
D., Palomino-Ángel, S., Price, R., Ricaurte-Villota, C., Fernanda Ricaurte, L.,

Rivera-Monroy, V. H., Rodriguez, A., Rodriguez, E., Salgado, J., Sannel, B., Seifollahi-Aghmiuni, S., Simard, M., Sjöberg, Y., Terskii, P., Thorslund, J., Zamora, D. A., & Jarsjö, J., 2021. Hydro-climatic changes of wetlandscapes across the world. Sci Rep: 11, 2754. https://doi.org/10.1038/s41598-021-81137-3

- Kapović Solomun, M., Ferreira, C.S.S., Eremija, S., Tošić, R., Lazović, N., and Češljar, G., 2021. Long-term* fire effects on vegetation and topsoil properties in beech forests of Manjaca Mountain (western Bosnia and Herzegovina). International Journal of Wildland Fire. https://doi.org/10.1071/WF20111
- Moallemi, E.A., de Haan, F. J., Hadjikakou, M., Khatami, S., Malekpour, S., Smajgl, A., Stafford Smith, M., Voinov, A., Bandari, R., Lamichhane, P., Miller, K.K., Nicholson, E., Novalia, W., Ritchie, E.G., Rojas, A.M., Shaikh, M. A., Szetey, K., Bryan, B.A., 2021. Evaluating participatory modelling methods for co-creating pathways to sustainability. Earth's Future. https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/2020EF001843
- Gullström, M., Dahl, M., Lindén, O., Vorhies, F., Forsberg, S., Ismail, R.O., Björk, M., 2021. Coastal blue carbon stocks in Mozambique and Tanzania: Support for climate adaptation and mitigation actions. IUCN Marine Programme, Book.
- Dahl, M., Bergman, S., Björk, M., Diaz-Almela, E., Granberg, M., Gullström, M., Leiva-Dueñas, C., Magnusson, K., Marco-Méndez, C., Piñeiro-Juncal, N., Mateo, M-A., 2021. A temporal record of microplastic pollution in Mediterranean seagrass soils. Environmental Pollution: 273, 116451. https://doi.org/10.1016/j.envpol.2021.116451

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



New management at the Tarfala research station

On January 1st 2021, Nina Kirchner became the new director and Per Holmlund deputy director at the Tarfala research station. They succeed Ninis Rosqvist, who has been director for the last 16 years.

Read more about Tarfala research station on Dep. of Physical Geography's website (in Swedish) \gg

Upcoming courses: Climate Science 2021, 2 hp

Climate Science is an introductory course to the interdisciplinary climate related research that is performed at Stockholm University. The eight Research Areas within the Bolin Centre for Climate Research is presented as well as other entities at Stockholm University involved in climate science. This course gives you a great opportunity to meet a wide spectra of climate scientists outside your own field.

Date: March 1-April 29, 2021

Venue: Zoom

Application deadline: February 25

Read more on the Bolin website »

Check out ClimBEco's courses

In 2020, a cooperation started between Bolin Centre for Climate Research and ClimBEco Graduate School at Lund University.

ClimBEco stands for Climate, Biodiversity and Ecosystem services in a changing world. It is a two-year graduate research school that promotes interdisciplinary research by supporting PhD students in networking and learning across different fields of study.

The ClimBEco research school offers a number of courses and workshops each year, including both in-depth disciplinary as well as interdisciplinary curricula.

Read more about the courses on ClimBEco's website » and

the Bolin Centre website »

Online course for students, March 1-5

Webinars on Geomorphology and Quaternary Geology is a short-term virtual mobility CIVIS course on geomorphology, geomorphological hazards and Quaternary geology that consists of five webinars, 1-5 March, 2021.

The course is open to Bachelor, Master and PhD students with a background in geology, geomorphology and environmental sciences from the CIVIS member Universities as well as external institutions.

Application deadline: 22 February.

For more information, visit Civis' website »

Job opening: person with a background in climate modelling, empirical or statistical downscaling, physical geography, microclimate processes and geographic information systems

We are looking for a person with a background in climate modelling, empirical or statistical downscaling, physical geography, microclimate processes and geographic information systems.

The position will be placed at Stockholm University, but there will be close collaboration with the Rossby Centre at the Swedish Meteorological and Hydrological Institute (SMHI).

During a project on the relationship between climate, pathogens and coffee yield, we have made detailed recordings of the microclimate in southwestern Ethiopia, and we would now like to hire a researcher/postdoc to use the climate logger data to advance insights into how the microclimate in shade coffee farms varies across time and space in the study region. In addition, regional and large-scale climate data from other observational sources, atmospheric re-analysis products and climate models will be used to assess how local climate conditions may change in the future. Finally, we are interested to investigate how such predicted changes in climate may affect coffee yield and diseases.

Please spread the word if you know anyone who may be interested, and feel free email any questions to ayco.tack@su.se

More details can be found on Stockholm University's website »

Job opening: Postdoctoral Fellow in marine hydrogeology/geochemistry/geophysics

This two-year postdoctoral position is part of a larger project investigating the development and dynamics of the marine cryosphere (including ice sheets, glaciers, floating ice tongues, sea ice, and subsea permafrost) and ocean conditions of northern Greenland, with a particular emphasis on the unexplored Sherard Osborn Fjord that connects the Ryder Glacier to the ocean at the southern Lincoln Sea and the northern Nares Strait.

The larger project covers a broad range of disciplines including atmospheric chemistry and physics, archeology, biology, climatology, ecology, genomics, glaciology, oceanography, marine geology, geophysics and geochemistry.

Read more on Stockholm University's website »

Welcome to review IPCC:s report Mitigation of Climate Change

"Mitigation of Climate Change" is one of three final reports within the IPCC Sixth Assessment Report, AR6. The second draft of this report will be available for expert review until 14 March.

This second review of the report and SPM (Summary for Policy Makers) is conducted by experts and governments and **runs from 18 January to 14 March 2021**. Experts need to register, which will be possible until 7 March.

It is not necessary to comment on the entire report. As an expert, you are welcome to focus on the parts in which you have the deepest scientific knowledge.

Please find more information here:

English: https://www.ipcc.ch/2021/01/04/pr-working-group-iii-ar6-sod/ »

Swedish: https://www.smhi.se/nyhetsarkiv/var-med-och-expertgranska-ipcc-s-delrapport-om-att-begransa-klimatforandringarna-1.167802 \times

Arctic Avenue Spring Call 2021

The Arctic Avenue Spring Call 2021 is open. Application **deadline is 19 February 2021**. Calls are also planned for autumn 2021.

Welcome with your application!

Read more and download application form on the Bolin website »



In Swedish | Dags för Klimatfestival

Nu planerar vi för årets Klimatfestival som kommer ske 19-21 maj. Klimatfestivalen är ett utmärkt tillfälle att kommunicera din forskning till intresserade ungdomar och allmänhet. Vill du delta? Eller har du tips på intressanta aktiviteter vi borde inkludera?

Välkommen att kontakta annika.granebec@su.se eller laila.islamovic@su.se.

BOLIN CENTRE EVENTS



Engineering Mechanics for Climate Research

Date: March 17th Time: Afternoon Venue: Zoom

A workshop arranged by representatives from KTH and the Bolin Centre for Climate Research.

How can engineering mechanics and climate research develop together?

What kind of exchange can be of mutual benefit in between the disciplines?

This workshop aims to create a meeting point between climate and engineering scientists whilst nourishing a discussion of future developments. Information of future funding opportunities will be announced. For questions, contact eva.gylfe@su.se

30 March Bolin Centre Seminar Series | Research Area 1

Time & venue: March 30 at 13h00, Zoom **Titel:** Mid-water hydroacoustics with oceanographic a

Titel: Mid-water hydroacoustics with oceanographic applications **Speaker:** Christian Stranne, assistant professor, Dep. of Geological Sciences

17 May Bert Bolin Science Seminar 2021

Time & venue: May 17 at 15h00, Zoom **Speaker:** Bill Ruddiman, professor emeritus, Dep. of Environmental

Sciences, University of Virginia.

20 May

Bert Bolin Climate Lecture 2021 Time & venue: May 20 at 15.00, Zoom

Speaker: Bill Ruddiman, professor emeritus, Dep. of Environmental

Sciences, University of Virginia.



Climate festival 2021 - Save the date!

The 4th annual Climate Festival will be held on 19-21 May.

Bolin Days 2021 - Save the date!

18-19 Nov

The 12th annual Bolin Days will be held on 18-19 November.

OTHER EVENTS AND INFORMATION



Virtual workshop on Values, Choices and Uncertainties in Climate Modelling

Organised by an interdisciplinary team of researchers at Stockholm University and KTH, we will bring together scientific and philosophical expertise with a range of short key-note talks by Andrew Gettelman, Gabi Hegerl, Ted Shepherd, Erica Thompson, Matt Brown, and Wendy Parker, followed by in-group discussions with a limited number of participants. The workshop will be on two consecutive half-days. Read more and register on Dept. of Meteorology's website »



Stockholm University Sustainability Forum 2021

The Sustainability Forum – Hållbarhetsforum – is a recurring event at Stockholm University where people can meet, build networks, and create collaborations for sustainable development. The third Sustainability Forum will be held on 22 April on the theme "From crisis to sustainability". Read more on Stockholm University's website »



Geological Society of Sweden - 150 years anniversary meeting In 2021 it is 150 years since the Geological Society of Sweden was founded. To commemorate this, a meeting will be held in Uppsala 17–19 August 2021.

The meeting is open to all geoscientist that are active in Sweden or have an interest in Swedish geoscience.

Deadline for abstract submission: April 30

Deadline for registration: July 30

Venue: Department of Earth Sciences, Uppsala University and the Geological Survey of Sweden, close to the city centre.

Read more on Department of Geological Science's website »

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: 072-148 91 49, 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

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Stay updated

Find news and upcoming events at $\underline{bolin.su.se}$ and follow us on $\underline{Twitter}$, $\underline{Facebook}$ and $\underline{YouTube}$.





