



Stockholm
University

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 40, 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.



Online Courses / Nature & Environment



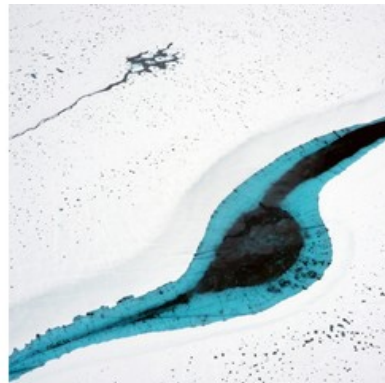
NEW

Taking on the Climate Crisis with Social Change

Explore the reasons and solutions for the climate crisis, equipping you to create a better today and tomorrow.

Join course for free

Educators are currently **active** on this course



New course: Taking on the Climate Crisis with Social Change

Stockholm University launches a new Massive Online Open Course (MOOC) – Taking on the Climate Crisis with Social Change on October 4. The MOOC was written by Alasdair Skelton, Christina Fredengren and Miriam Huitric, and filmed by Per Sättberger, Carolina Falkman and Jens Wallin Carlin (Kommunikationsavdelningen).

The MOOC was produced in partnership with Future Learn, and is open to all and can be read entirely for free.

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



Climate modelling at the Bolin Centre

Earlier this week, The Royal Swedish Academy of Sciences awarded the Nobel Prize in Physics 2021 to Syukuro Manabe, Princeton University, USA, and Klaus Hasselmann Max Planck Institute for Meteorology, Hamburg, Germany, "for the physical modelling of Earth's climate, quantifying variability and reliably predicting global warming".

Numerical models of the global climate system are essential in research carried out at the Bolin Centre. Earth system models are used across the research areas to study topics covering deep ocean circulation, land surface processes, atmospheric composition and dynamics and upper atmospheric physics. Bolin Centre researchers also participate in the development of the next generation of Earth System Models. The modelling coordination

team at the centre ascertains that the necessary computational resources are available for the Bolin Centre researchers to be able to carry out this work.

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



European forest microclimates mapped at high resolution

A new paper co-authored by Bolin Centre researchers at the Dept. of Ecology, Environment and Plant Sciences at Stockholm University, provides novel high-resolution Europe-wide maps for monthly sub-canopy temperatures. These maps are very valuable for ecological modelling and research on climate change impacts on biodiversity.

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

PhD-day on 4 November

Dear PhD students and Postdocs,
The Bolin Centre Climate Research School is organizing a PhD-day on November 4th exclusively for PhD-students and postdoctoral researchers. Last day to register is 15 October.

This is an opportunity to meet your colleagues and to practice communicating your work with a presentation or poster – or both. There will be a Presentation Competition for regular presentations and the best presentations will be awarded the following amount of money for research:

- 1st price: 20 000 SEK
- 2nd price: 10 000 SEK
- 3rd price: 5 000 SEK

Since we don't know how the situation will be during the fall we are planning to have it as an onsite-venue as well as on Zoom for those who cannot attend in person. Apart from the PhD presentations during the day, there will be a healthy, climate smart lunch as well as a dinner to conclude the event.

Very welcome!

Carmen and Otto

[More information can be found on the Bolin Centre website »](#)

Open call: Demonstrator projects

This is a call for Demonstrator projects – projects that can demonstrate and disseminate technologies for digital transformation and its impact on society. Projects are expected to show novelty, high impact, and wide outreach. Eligible researchers at KTH schools, Stockholm University (SU), and RISE Digital Systems are encouraged to apply. The call opens 1 November.

[Read more on Digital Future's website »](#)

Open call for nominations to the Climate and Cryosphere Scientific Steering Group

The Climate and Cryosphere (CliC) Project of the World Climate Research Programme (WCRP) is launching an open call for nominations to its Scientific Steering Group (SSG) for the period 2022-2025.

The SSG is the governing body of CliC and has the overall responsibility for planning, and implementing the CliC strategy plan and monitoring its activities. The SSG helps shape the international research agenda and functions as an integrator of activities to avoid duplication of efforts.

[Read more on the WCRP website »](#)

Welcome to nominate the Bert Bolin Climate Lecturer 2022

To honour Professor Bolin, after which the Bolin Centre is named, the Faculty of Science at Stockholm University established the annual Bert Bolin Climate Lecture in 2008, shortly after Bert Bolin had passed away. Every year, a distinguished Bert Bolin Climate Lecturer is invited to Stockholm to hold a popular science lecture and a science seminar at the Bolin Centre for Climate Research. A list of [previous Bert Bolin Lecturers is found here »](#)

We have the pleasure to invite you to submit nominations for the Bert Bolin Climate Lecturer 2022! Please use the attached nomination form in the e-mail of the newsletter, and return it to us **no later than October 14, 2021**. If you have submitted a nomination in a previous year which you would like us to re-consider for 2022, it is sufficient to send an email stating this request to nina.kirchner@natgeo.su.se and alasdair.skelton@geo.su.se. Your contribution is highly valued and appreciated, and we are looking forward to receiving your nomination, and an inspiring and exciting Bert Bolin Climate Lecture in 2022!

Best wishes
Nina and Alasdair



Bolin Centre Seminar Series RA8

Title: Variation in the thermal tolerance of plants at global and local scales
Speaker: Aelys M. Humphreys, Department of Ecology, Environment and Plant Science
Time: 20 October, 14h00-15h00
Location: William Olsson and Zoom

Temperature has long been considered one of the strongest determinants of plant distribution patterns globally. This is particularly true for cold temperatures because the physiology required to tolerate cold and freezing conditions is complex and assumed to be difficult to evolve. Yet, since their origins in the warm, wet tropics, flowering plants have clearly transitioned to temperate climates multiple times independently. Furthermore, evidence to suggest that cold tolerance can evolve relatively quickly is accumulating. Aelys M. Humphreys will present her ongoing research that addresses this contradiction.

[Read more on the Bolin 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.

- Elvidge, A.D., Renfrew, I.A., Brooks, I.M., Srivastava, P., Yelland, M.J., Prytherch, J., 2021. Surface Heat and Moisture Exchange in the Marginal Ice Zone: Observations and a New Parameterization Scheme for Weather and Climate Models. JGR Atmospheres. <https://doi.org/10.1029/2021JD034827>

- Haesen, S., Lembrechts, J.J., De Frenne, P., Lenoir, J., Aalto, J., Ashcroft, M.B., Kopecký, M., Luoto, M., Maclean, I., Nijs, I., Niittynen, P., van den Hoogen, J., Arriga, N., Brůna, J., Buchmann, N., Čiliak, M., Collalti, A., De Lombaerde, E., Descombes, P., Gharun, M., Goded, I., Govaert, S., Greiser, C., Grelle, A., Gruening, C., Hederová, L., Hylander, K., Kreyling, J., Kruijt, B., Macek, M., Máliš, F., Man, M., Manca, G., Matula, R., Meeussen, C., Merinero, S., Minerbi, S., Montagnani, L., Muffler, L., Ogaya, R., Penuelas, J., Plichta, R., Portillo-Estrada, M., Schmeddes, J., Shekhar, A., Spicher, F., Ujházyová, M., Vangansbeke, P., Weigel, R., Wild, J., Zellweger, F., Van Meerbeek, K., 2021. ForestTemp – Sub-canopy microclimate temperatures of European forests. *Global Change Biology*. <https://doi.org/10.1111/gcb.15892>
- Blaschek, L. and Pesquet, E. (2021). Phenoloxidasas in Plants—How Structural Diversity Enables Functional Specificity. *Frontiers of Plant Science*, <https://doi.org/10.3389/fpls.2021.754601>
- Mason-Jones K., Robinson S., Veen G. F. C., Manzoni S., and W. H. van der Putten (2021). Microbial storage and its implications for soil ecology. *ISME Journal*, <https://doi.org/10.1038/s41396-021-01110-w>
- Manzoni S., Ding Y., Warren C., Banfield C.C., Dippold M., and K. Mason-Jones (2021). Intracellular storage reduces stoichiometric imbalances in soil microbial biomass – A theoretical exploration. *Frontiers in Ecology and Evolution*, <https://doi.org/10.3389/fevo.2021.714134>
- Merckx, T., Nielsen, M.E., Heliölä, J., Kuussaari, M., Pettersson, L.B., Pöyry, J., Tiainen, J., Gotthard, K., and Kivelä, S.M., 2021. Urbanization extends flight phenology and leads to local adaptation of seasonal plasticity in Lepidoptera. *PNAS*: 118 (40) e2106006118. <https://doi.org/10.1073/pnas.2106006118>

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

8 Oct	<p>Doctoral Thesis, John Livsey Time: 8 October, 14h00 Venue: DeGeer lecture hall Geoscience building and via zoom Title: Sustainable agriculture – From global challenges to local land management. Read more on the Department of Physical Geography's website »</p>
12 Oct	<p>CNDS Forum on Natural Hazards and Disasters Time: 12 October, 09h30–17h00 Location: Zoom Organiser: Centre of Natural Hazards and Disaster Science Read more about the conference »</p>
13 Oct	<p>CIVIS Cups & Cakes webinar series Time: 13 October, 12h00-13h00 Title: The Mediterranean Institute for the Environmental Transition (ITEM), a new tool to address the environmental transition at Aix-Marseille Université Speaker: Jérôme ROSE, CNRS Senior Scientist at the European Centre for Research and Teaching in Environmental Geoscience. Read more on CIVIS' website »</p>
14 Oct	<p>Research seminar, Alejandro Baró Pérez Date: 14 October, 14h15-14h45 Zoom-link: https://stockholmuniversity.zoom.us/j/5928073976?pwd=UVNURFF0UzNtWWVpcjRXUmxdG5GQT09 Title: Adding aerosol-radiation interactions to MIMICA V5 model Read more on the Department of Meteorology's website »</p>
20 Oct	<p>Bolin Centre Seminar Series RA8 Title: Variation in the thermal tolerance of plants at global and local scales Date: Wednesday 20 October Time: 14h00-15h00 Speaker: Aelys M. Humphreys, Department of Ecology, Environment and Plant Science, Stockholm University Location: William Olsson and Zoom Read more on the Bolin Centre website »</p>
20 Oct	<p>Arctic Avenue Fall Call 2021 Application deadline: October 20 You are welcome to submit your application! Read more on the Bolin Centre website »</p>
21 Oct	<p>Conference: Climate change, the ocean and its people: Unprecedented challenges, workable solutions and a sustainable future The third Ocean Sustainability Bergen Conference is open for registration. Time: 21 October, 13h00-15h45 Read more »</p>
	<p>Multifunktionella våtmarker: realistiskt mål eller orealistisk dröm</p>

27

Oct

Konferensen sammanför forskare, rådgivare och beslutsfattare till en diskussion om mål och medel kring restaurering och nyanläggning av våtmarker. Programmet har en bred ansats, med föredrag från såväl hydrologiska, biogeokemisk, ekologiska som samhällsvetenskapliga perspektiv.

Deadline för anmälan: 15 oktober

[Läs mer på Bolincentrets webbplats »](#)

4

Nov

CRS PhD-day

Time: 4 November

Deadline to register: 15 October

[Read more »](#)

4

Nov

RA3 zoom series | Perspectives of Hydrology and Water Resources

Time: 4 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 »](#)

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 »](#)

18-19

Nov

Bolin Days 2021 in Aula Magna

Save the date!

7

Dec

Bolin Centre Seminar Series RA7

Speaker: Roland Jansson, professor at 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 (Communications)
- Laila: 072-444 35 25 laila.islamovic@su.se (Communications & 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.

Editor: Magnus Atterfors

Photo: Martin Jakobsson, SMHI, Rohan Shetty, Jan-Niklas Nuppenau

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