

# Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 42, 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.





## Climate change causing irreversible shifts in unique Asian ecosystem

Thirty-four million years ago, sudden climate change caused ecological breakdown in Central Asia. Deserts spread across the lowlands, and biological diversity was permanently affected. These are the findings by an international team, led by researchers from the University of Amsterdam, Stockholm University, and the CNRS (France). Their results are now published in the scientific journal Science Advances.

Read article on the Bolin web site»

## Recent Bolin Centre scientist publications

On  $\underline{bolin.su.se/publications}$ , you'll find a list of scientific journal publications by Bolin Centre scientists. Here are the most recent ones.

- Önskog, T., Franzke, C. L. E., and Hannachi, A., 2020. Nonlinear time series models for the North Atlantic Oscillation, Adv. Stat. Clim. Meteorol. Oceanogr.: 6, 141–157, https://doi.org/10.5194/ascmo-6-141-2020, 2020»
- Hochman, A., Scher, S., Quinting, J., Pinto, J.G. and Messori, G., 2020.
   Dynamics and predictability of cold spells over the Eastern Mediterranean.
   Climate Dynamics. <a href="https://link.springer.com/article/10.1007/s00382-020-05465-2">https://link.springer.com/article/10.1007/s00382-020-05465-2</a>»
- Garratt, J., Wilczak, J., Holtslag, A., Schmid, H. P., Grachev, A., Beljaars, A., Foken, T., Chen, F., Fairall, C., Hicks, B., Kusaka, H., Martilli, A., Masson, V., Mauder, M., Oncley, S., Rotach, M., & Tjernström, M., 2020. Commentaries on Top-Cited Boundary-Layer Meteorology Articles. Boundary-Layer Meteorology. https://doi.org/10.1007/s10546-020-00563-4»
- Baccarini, A., Karlsson, L., Dommen, J., Duplessis, P., Vüllers, J., Brooks, I. M., Saiz-Lopez, A., Salter, M., Tjernström, M., Baltensperger, U., Zieger, P., & Schmale, J., 2020. Frequent new particle formation over the high Arctic pack ice by enhanced iodine emissions, Nature Communications. <a href="https://doi.org">https://doi.org</a>

### /10.1038/ s41467-020-18551-0»

- Sjöström, J., Martínez Cortizas, A., Hansson, V.S., Silva Sànchez, N., Bindler, R., Rydberg, J., Mörth, C-M., Ryberg, E,E., Kylander, M,E., 2020. Paleodust deposition and peat accumulation rates – Bog size matters. Chemical Geology, Vol 554. DOI: https://doi.org/10.1016/j.chemgeo.2020.119795»
- Barbolini, N., Woutersen, A., Dupont-Nivet, G., Silvestro, D., Tardif, D., Coster, P., Meijer, N., Chang, C., Zhang, H-X., Licht, A., Rydin, C., Koutsodendris, A., Han, F., Rohrmann, A., Liu, X-J., Zhang, Y., Donnadieu, Y., Fluteau, F., Ladant, J-B., Le Hir, G., and, Hoorn, C., 2020. Cenozoic evolution of the steppe-desert biome in Central Asia. Science Advances: 6, 41. DOI: 10.1126/sciadv.abb8227»

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



### Welcome to Baltic Sea Day 2020 - 4 November

At Stockholm University researchers have studied the Baltic Sea and its challenges in diverse disciplines for more than six decades. The majority focus on scientific issues that are important for a better understanding and management of the Baltic Sea and its catchment area, and several research fields are considered world leading. The Baltic Sea Day highlights frontier science on our unique sea by showcasing this broad set of expertise at the university.

Several Bolin Centre scientists participate in the program.

Read more on Baltic Sea Centre's web site»

### Release of the first FORCeS policy brief

The first FORCeS policy brief is entitled  $\lq$ Is there a conflict between the clean air goals of the European Green Deal and climate neutrality?" The brief addresses the following questions:

- Why is there a potential conflict between the climate and clean air goals?
- What is known about the cooling and warming effects of aerosol particles?
- What is the relevance for policy?

The panel discussion will take place online on **Monday, October 26, 2020 at 13:30** (Swedish time).

The event will include a presentation of the policy brief by Annica Ekman (Department of Meteorology, Stockholm University), followed by a panel discussion moderated by Ilona Riipinen (Department of Environmental Science, Stockholm University). The expert panel includes Annica Ekman (Stockholm University), Anna-Karin Nyström (Swedish Environmental Protection Agency), Markku Rummukainen (Lund University), and Bjørn Samset (CICERO Center for International Climate Research).

Further information, including the policy brief and the link to join the panel discussion, can be found here: <a href="https://forces-project.eu/forces-policy-brief-released/">https://forces-project.eu/forces-policy-brief-released/</a>»

FORCeS is a project funded by European Union's Horizon 2020 research and innovation programme. It aims at understanding and reducing the long-standing uncertainty in anthropogenic aerosol radiative forcing. Further information: www.forces-project.eu

## New EuroCC National Competence Center Sweden (ENCCS)

On 1st of September the new EuroCC National Competence Center Sweden (ENCCS) was established. <u>ENCCS</u> is hosted by Uppsala University, with <u>RISE</u> as a third party.

ENCCS is one of 33 European national High Performance Computing Competence Centers and is established by the EuroHPC JU to strengthen the European knowledge base in HPC technologies and bridging the digital skills gap.

ENCCS activities will be carried out in close collaboration with SNIC (Swedish National

Infrastructure for Computing) as well as other HPC related national academic and private infrastructures/institutions/centers.

ENCCS works in four directions for three types of users - Swedish academia, public organisations and industry:

- Support for preparation of proposals to both PRACE systems and EuroHPC JU (pre)exascale systems for all types of calls.
- Intermediate and advance training towards heterogeneous computing, AI and HPDA for Swedish academia, public organizations and industry
- High-lever software support towards exascale computing, AI and HPDA
- Industry (especially SME) awareness creator towards heterogeneous computing, AI and HPDA.

If you have or will receive interests/requests or need of help from users to apply for the above mentioned PRACE and EuroHPC JU systems, training or software support, contact ENCCS or direct the users to ENCCS.

## **BOLIN CENTRE EVENTS**



### **Bolin Centre Seminar Series | Research Area 8**

Time & venue: Oct 20 at 16h00, Zoom

Titel: The interplay of plasticity and evolution in insect responses to

variable, changing environments

Speaker: Lauren Buckley, Department of Biology, University of

Washington

Read more on the Bolin web site»



#### Research Area 3 Zoom Series

Time & venue: Oct 20 at 14h00, Zoom

Title: Rejected recharge: The story of what lies beneath

Speaker: Brian Thomas, Newcastle University School of Engineering,

United Kingdom

Read more on the Bolin web site»



### Climate Research School - PhD Day

Date: 22 October

Venue: Onsite as well as a Webinar

The Bolin Centre Climate Research School is organizing a PhD-day exclusively for PhD-students and postdoctoral researchers.

Read more on the Bolin web site»



### **Bolin Days**

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! More info will follow.

Read more on the Bolin web site»



## **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



### Baltic Sea Days 2020

Time and venue: Nov 4, at 08.00 - 17.00, online

At Stockholm University researchers have studied the Baltic Sea and its challenges in diverse disciplines for more than six decades. The majority focus on scientific issues that are important for a better understanding and management of the Baltic Sea and its catchment area, and several research fields are considered world leading. The Baltic Sea Day highlights frontier science on our unique sea by showcasing this broad set of expertise at the university.

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Read more on Baltic Sea Centre's web site»



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»



### Arctic Avenue Fall Call 2020

The Arctic Avenue Fall Call 2020 is now open. Application deadline is **October 20**, 2020. Specific information for the call and application »

Please send the application to the Arctic Avenue Steering Committee by email to Annika Granebeck and Kaarina Weckström. State Application for Arctic Avenue funding in the subject heading.

A call is also planned for spring 2021. Welcome with your application!

# 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, magnus.atterfors@su.se (Communications)
- Annika: 072-148 91 49, <a href="mailto:annika.granebeck@su.se">annika.granebeck@su.se</a> (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 <a href="mailto:bolin@su.se">bolin@su.se</a>.

Editor: Magnus Atterfors

Foto: Martin Jakobsson, Xiaoming Wang, Ulf Manhammar/Azote

### Stay updated

Find news and upcoming events at <u>bolin.su.se</u> and follow us on <u>Twitter</u>, <u>Facebook</u> and YouTube.





