



Week 51, 2020

[Click here to read the letter in your browser](#)

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.



---

## JUST IN: Bolin-member in Science's 2020 BREAKTHROUGH of the YEAR

The paper on climate sensitivity that Thorsten Mauritsen co-authored was selected as a runner-up breakthrough of the year in Science.

[Read more on Science's website »](#)

[Read the paper: An Assessment of Earth's Climate Sensitivity Using Multiple Lines of Evidence »](#)

---

## Communication from the Directors on the new Climatological Normal

In 2015, as many of you are no doubt aware, the World Meteorological Office (WMO) decided on a revised definition of the term "climatological normal" (WMO, 2017). [This term now refers to the most-recent 30-year period finishing in a year ending with 0](#) (1991-2020 as of January 1, 2021), rather than to non-overlapping 30-year periods (1901-1930, 1931-1960, 1961-1990, 1991-2020) as was the case previously. We suspect that introduction of a new climatological normal can cause some confusion among members of the general public, especially in the context of the IPCC's recommendation of keeping warming below 1.5-degrees. We are therefore providing a couple of points which may be helpful when communicating with the public.

- Calculated from the GISS Surface Temperature Analysis (GISTEMP Team, 2020), the new climatological normal (1991-2020) will be 0.5 degrees warmer than the previous non-overlapping climatological normal (1961-1990).
- The IPCC's recommendation of keeping warming below 1.5-degrees is a comparison with "pre-industrial" temperature. This term has multiple definitions. In the IPCC special report: Global warming of 1.5°C (IPCC, 2018), "pre-industrial" refers to the time period between 1850 and 1900. The new climatological normal (1991-2020), calculated from the GISS Surface Temperature Analysis, will be 0.8 degrees warmer than pre-industrial temperature, so-defined.

[Read more on the Bolin website »](#)

---

## New datasets in the Bolin Centre Database

- Peggy Achtert, Ian M. Brooks, Matthew D. Shupe, Ola Persson, Michael Tjernström, John Prytherch, Barbara Brooks (2020). Cloudnet remote sensing retrievals of cloud properties from the SWERUS-C3 Arctic Ocean expedition in 2014. Dataset version 1.0. Bolin Centre Database. <https://doi.org/10.17043/swerus-2014-cloudnet>
- Jutta Vüllers, Peggy Achtert, Ian Brooks, Ryan Neely III, Barbara Brooks (2020). Cloudnet remote sensing retrievals of cloud properties during the Arctic Ocean 2018 expedition. Dataset version 3.0. Bolin Centre Database. <https://doi.org/10.17043/ao2018-cloudnet-3>
- Emelie Linnéa Graham, Paul Zieger, Ulla Wideqvist, Tabea Hennig, Radovan Krejci, Johan Ström (2020). Physical and chemical properties of aerosol particles and cloud residuals on Mt. Åreskutan in Central Sweden during summer 2014. Dataset version 1.0. Bolin Centre Database. <https://doi.org/10.17043/graham-2020>

- Giorgos Maneas, Dimitris Bousbouras, Viggo Norrby (2020). Waterbirds species distribution in Gialova lagoon, Greece, November 2016–January 2019. Dataset version 1.0. Bolin Centre Database. <https://doi.org/10.17043/maneas-2020>



## Publications

### Recent Bolin Centre scientist publications

On [bolin.su.se/publications](https://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.

- Frey, L., Bender, F., and Svensson, G., 2020. What are the processes controlling the vertical aerosol distribution in marine stratocumulus regions – A sensitivity study using the climate model NorESM1-M. Atmos. Chem. Phys. <https://acp.copernicus.org/preprints/acp-2019-846>
- Chadburn, S.E., Aalto, T., Aurela, M., Baldocchi, D., Biasi, C., Boike, J., Burke, E.J., Comyn-Platt, E., Dolman, A.J., Duran-Rojas, C., Fan, Y., Friborg, T., Gao, Y., Gedney, N., Göckede, M., Hayman, G.D., Holl, D., Hugelius, G., Kutzbach, L., Lee, H., Lohila, A., Parmentier, F.-J.W., Sachs, T., Shurpali, N.J., and Westermann, S., 2020. Modeled microbial dynamics explain the apparent temperature sensitivity of wetland methane emissions. Global Biogeochemical Cycles: 34, e2020GB006678. <https://doi.org/10.1029/2020GB006678>
- Ahtert, P., O'Connor, E. J., Brooks, I. M., Sotiropoulou, G., Shupe, M. D., Pospichal, B., Brooks, B. J., and Tjernström, M., 2020. Properties of Arctic liquid and mixed-phase clouds from shipborne Cloudnet observations during ACSE 2014. Atmos. Chem. Phys.: 20, 14983–15002. <https://doi.org/10.5194/acp-20-14983-2020>
- Loisel, J., Gallego-Sala, A.V., Amesbury, M.J., Magnan, G., Anshari, G., Beilman, D., Benavides, J.C., Blewett, J., Camill, P., Charman, D.J., Chawchai, S., Hedgpeth, A., Kleinen, T., Korhola, A., Large, D., Mansilla, C.A., Müller, J., van Bellen, S., West, J.B., Yu, Z., Bubier, J., Garneau, M., Moore, T., Sannel, A.B.K., Page, S., Välikanta, M., Bechtold, M., Brovkin, V., Cole, L.E.S., Chanton, J.P., Christensen, T.R., Davies, M.A., De Vleeschouwer, F., Finkelstein, S.A., Frolking, S., Gałka, M., Gandois, L., Girkin, N., Harris, L.I., Heinemeyer, A., Hoyt, A.M., Jones, M.C., Joos, F., Juutinen, S., Kaiser, K., Lacourse, T., Lamentowicz, M., Larmola, T., Leifeld, J., Lohila, A., Milner, A.M., Minkkinen, K., Moss, P., Naafs, B.D.A., Nichols, J., O'Donnell, J., Payne, R., Philben, M., Piilo S., Quillet, A., Ratnayake, A.S., Roland, T., Sjögersten, S., Sonnentag, O., Swindles, G.T., Swinnen, W., Talbot, J., Treat, C., Valach, A.C., Wu, J., 2020. Expert assessment of future vulnerability of the global peatland carbon sink. Nature Climate Change. doi: [10.1038/s41558-020-00944-0](https://doi.org/10.1038/s41558-020-00944-0)
- Shojaei, S., Kalantari, Z. & Rodrigo-Comino, J., 2020. Prediction of factors affecting activation of soil erosion by mathematical modeling at pedon scale under laboratory conditions. Scientific Reports: 10, 20163. <https://www.nature.com/articles/s41598-020-76926-1>
- Zhang, Q., and Chen, J., 2020. Enhanced East Asian summer monsoon precipitation due to vegetation feedback during the last interglacial 127ka. Quaternary Sciences: 40(6): 1499–1512. <http://www.dsjyj.com.cn/EN/10.11928/j.issn.1001-7410.2020.06.11>

Please send your newly published publication to [bolin@su.se](mailto:bolin@su.se).



Watch the new Bert Bolin film

Stockholm University has produced a short film and a longer article, portraying the

life of Bert Bolin.

[Read the article and watch the film on Stockholm University's website »](#)

---

## Experts are invited to review IPCC:s sub-report concerning Impacts, Adaptation and Vulnerability

"Impacts, Adaptation and Vulnerability" is one of three concluding sub-reports within IPCC's Sixth Assessment Report. From December 4th, the second draft of the sub-report is open for expert review. Welcome to participate!

[Read more on SMHI's website \(Swedish\) »](#)

[Read more on IPCC's website »](#)

---

## Arctic Avenue Spring Call 2021

The Arctic Avenue Spring Call 2021 is now 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 »](#)

---

## Call for applications - stipends

SSAG - The Swedish Society for Anthropology and Geography - has opened its call for applications for stipends. **Deadline is 15 January!**

SSAG has stipends for PhD-students, master students, and post-docs. Last year the application pressure was not low, but also not high (i.e. a good application had good chances).

[Read more on SSAG's website »](#)

---

## Bolin Center After Work: Serious Gaming for Climate Adaptation

Welcome to after work when we play SMHI's new Climate Adaptation game! You participate from home with your computer. We provide the gaming platform and game leaders - grab a drink and join in.

Serious gaming has gained increasing prominence in climate change communication, and provides an opportunity to engage new audiences and new platforms for knowledge co-creation and dialogues. This game is about adapting a fictional city, Väderköping, to a changing climate. The players act as decision-makers for the city's climate adaptation, which provides insight into how the economy and people's lives are affected by climate adaptation measures. This is an excellent opportunity to test a novel way to communicate climate research, perhaps you are interested in doing something similar with your research?

**Time & place:** January 20 at 16h00-17h00, online

**Game leaders:** Pontus Wallin and Aino Krunegård from SMHI

**Register:** by e-mailing [annika.granebeck@su.se](mailto:annika.granebeck@su.se)

[Read more about the game »](#)

[Research on the Climate Adaptation Game »](#)

The game has been developed by SMHI together with Linköping University and in collaboration with high school teachers.

---

## BOLIN CENTRE EVENTS



### Climate festival 2021 - Save the date!

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



### Bolin Days 2021 - Save the date!

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

---

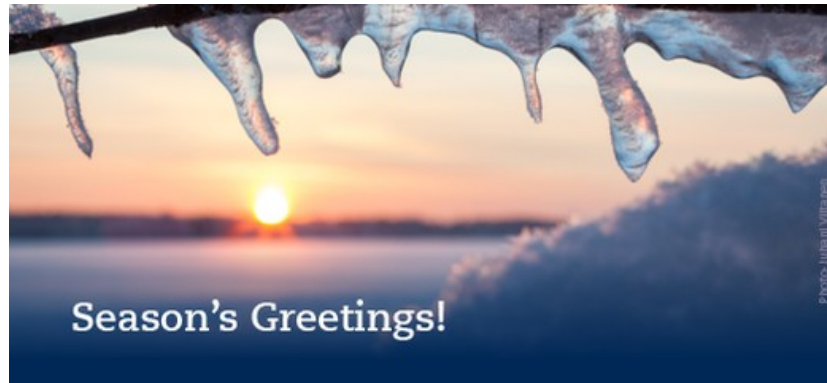
## OTHER EVENTS AND INFORMATION

22

Apr

### 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 »](#)



We conclude this Newsletter by wishing you all a safe and enjoyable Christmas and we look forward to carrying on our work together in 2021.

### 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](mailto:magnus.atterfors@su.se) (Communications)
- Annika: 072-148 91 49, [annika.granebeck@su.se](mailto:annika.granebeck@su.se) (Coordination)
- Eva: 076-650 03 08, [eva.gylfe@su.se](mailto: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 [bolin@su.se](mailto:bolin@su.se).

Editor: Magnus Atterfors

Foto: Martin Jakobsson, MISU

#### Stay updated

Find news and upcoming events at [bolin.su.se](http://bolin.su.se) and follow us on [Twitter](#), [Facebook](#) and [YouTube](#).

