



Stockholm  
University

Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 4, 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.



Top 10 insights in climate science in 2020 selected by 57 leading global researchers

The peer-reviewed article **10 New Insights in Climate Science 2020 – a Horizon Scan**, published in the journal *Global Sustainability* summarizes some of the past year's most important findings within climate change-related research. Gustaf Hugelius is lead author on the part on greenhouse gas emissions from permafrost.

[Read the article »](#)



Publications

#### Recent Bolin Centre 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.

- Hutchinson, D.K., Coxall, H.K., Lunt, D.J., Steinhorsdottir, M., de Boer, A.M., Baatsen, M., von der Heydt, A., Huber, M., Kennedy-Asser, A.T., Kunzmann, L., Ladant, J.-B., Lear, C.H., Moraweck, K., Pearson, P.N., Piga, E., Pound, M.J., Salzmann, U., Scher, H.D., Sijp, W.P., Sliwińska, K.K., Wilson, P.A., and Zhang, Z., 2021. The Eocene–Oligocene transition: a review of marine and terrestrial

proxy data, models and model–data comparisons, *Clim. Past*: 17, 269–315. <https://doi.org/10.5194/cp-17-269-2021>.

- Darvishi, M., Destouni, G., Aminjafari, S., Jaramillo, F., 2021. Multi-Sensor InSAR Assessment of Ground Deformations around Lake Mead and Its Relation to Water Level Changes. *Remote Sensing* 13, 406. <https://doi.org/10.3390/rs13030406>
- Dellmuth, L.M., Bender, F.A.-M., Jönsson, A.R., Rosvold, E.L., and von Uexkull, N., 2021. Humanitarian need drives multilateral disaster aid. *Proc. Nat. Acad. Sci. USA*. <https://www.pnas.org/content/118/4/e2018293118>
- Saldívar-Lucio, R., Trasiña-Castro, A., Jiddawi, N., Chuenpagdee, R., Lindström, L., Jentoft, S., Fraga, J., and de la Torre-Castro, M., 2021. Fine-tuning climate resilience in Marine Socio-Ecological Systems: the need for accurate space-time representativeness to identify relevant consequences and responses, published in *Frontiers in Marine Science*, section Marine Conservation and Sustainability: 7, 1164. [Doi:10.3389/fmars.2020.600403](https://doi.org/10.3389/fmars.2020.600403).
- Pan, Y.-Y., Nara, M., Löwemark, L., Miguez-Salas, O., Gunnarson, B., Iizuka, Y., Chen, T.-T., & Dashtgard, S.E., 2021. The 20-million-year old lair of an ambush-predatory worm preserved in northeast Taiwan. *Scientific Reports* volume: 11, 1174. <https://www.nature.com/articles/s41598-020-79311-0>
- Lu, Z., Zhang, Q., Miller, P.A., Zhang, Q., Berntell, E., & Smith, B., 2021. Impacts of large-scale Sahara solar farms on global climate and vegetation cover. *Geophysical Research Letters*: 48, e2020GL090789. <https://doi.org/10.1029/2020GL090789>
- Chen, J., Huang, W., Feng, S., Zhang, Q., Kuang, X.Y., Chen, J.H., Chen, F.H., 2021. The modulation of westerlies-monsoon interaction on climate over the monsoon boundary zone in East Asia. *International Journal of Climatology*: 41, E3049–E3064. <https://doi.org/10.1002/joc.6903>.
- Dellmuth, L.M., F.A.-M. Bender, Jönsson, A.R., Rosvold, E.L., and von Uexkull, N. 2021. Humanitarian need drives multilateral disaster aid. *PNAS, Proceedings of the National Academy of Sciences*: 118 (4), e2018293118. [DOI:10.1073/pnas.2018293118](https://doi.org/10.1073/pnas.2018293118)

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



### Dramatic increase in microplastics in seagrass soil since the 1970s

Large-scale production of vegetables and fruit in Spain with intensive plastic consumption in its greenhouse industry is believed to have leaked microplastic contaminants since the 1970s into the surrounding Mediterranean seagrass beds. This is shown in a new study where researchers have succeeded in tracing plastic pollution since the 1930s and 1940s by analyzing seagrass sediments.

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

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### 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](#) »

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### 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](#) »

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### Part time communicator of cryosphere science; open now

The International Cryosphere Climate Initiative (ICCI, <http://iccinet.org/icci-at-a-glance/>) communicates cryosphere science to policymakers.

ICCI is seeking an early career scientist (ECS, from master's to post-doctoral level) as its "Nordic" outreach coordinator-scientist (Swedish, Norwegian or Danish speaker, but with a strong ability to communicate in the Swedish context), to work on the "Cryo1.5°" effort in Sweden and the Nordic countries. We anticipate that this early career scientist best knows the cryosphere science in their own area of expertise, yet is willing to learn and communicate all five dynamics on which we focus in relation to the 1.5° goal: ice sheets, sea ice, glaciers, permafrost and polar oceans. Social media skills are important; but this position will also provide basic communications and on-the-job training; including working with climate policy makers, in a way meant to develop the ECS's future career as well. To summarize, the position:

- Would be ideal for a post-doc, PhD or even master's student for whom Covid-19 may have delayed field work or research;
- Will be part-time (15-20 hours/wk, though this will vary and the applicant needs to be flexible to allow more demanding periods, at the same time as ICCI would be flexible to less work during periods of academic demand);
- Would require a commitment through August 2021, although if an applicant is available to continue through the fall we have funding for that; this could include participation at COP-26 in Glasgow;
- Manage outreach to Sweden (in the first instance and as a "testing ground"), and ideally the other Nordic countries in concert with our global outreach program and coordinator (Dr. Heidi Sevestre, a French glaciologist, see: <https://www.heidisevestre.com>) as well as under the supervision of ICCI's director;
- and again, excellent "skandinaviska" language skills essential.

The position would be as a consultant, with a monthly honoraria around SEK10-15,000 per month (apologies, NGO budget, might be able to do a bit more depending on experience), plus any expenses; and free related communications training.

Emails indicating interest, with CV may be sent to [heidi@iccinet.org](mailto:heidi@iccinet.org)».

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#### Online film screening: **Picture a Scientist**

The Section for Earth and Environmental Sciences and the Gender Academy at Stockholm University are hosting an online film screening of PICTURE A SCIENTIST, available to watch between January 31st and February 2nd, followed by a panel discussion on Friday 5th February at 15.00–16.30.

#### Synopsis

PICTURE A SCIENTIST chronicles the groundswell of researchers who are writing a new chapter for women scientists. Biologist Nancy Hopkins, chemist Raychelle Burks, and geologist Jane Willenbring lead viewers on a journey

deep into their own experiences in the sciences, ranging from brutal harassment to years of subtle slights. Along the way, from cramped laboratories to spectacular field stations, we encounter scientific luminaries – including social scientists, neuroscientists, and psychologists – who provide new perspectives on how to make science itself more diverse, equitable, and open to all.

[Read more and sign up to join the film screening »](#)

## BOLIN CENTRE EVENTS

30

March

### **Bolin Centre Seminar Series | Research Area 1**

**Time & venue:** March 30 at 13h00, Zoom

**Titel:** Mid-water hydroacoustics with oceanographic applications

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

19-21

May

### **Climate festival 2021 - Save the date!**

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

18-19

Nov

### **Bolin Days 2021 - Save the date!**

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

## OTHER EVENTS AND INFORMATION

22-23

Feb

### **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 »](#)

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 »](#)

## 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)
- Laila: [laila.islamovic@su.se](mailto:laila.islamovic@su.se) (Communications & coordination during the spring)
- Eva: 076-650 03 08, [eva.gylfe@su.se](mailto: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](mailto:bolin@su.se).

Editor: Magnus Atterfors

Foto: Martin Jakobsson, Gustaf Hugelius, Miguel Ángel Mateo, Diego Moreno, Picture a Scientist movie poster.

### **Stay updated**

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

