

## **Bolin Centre for Climate Research**

A collaboration between Stockholm University, KTH and SMHI

Week 3, 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.



# Humanitarian needs crucial for UN disaster relief after climate disasters



A new crossdisciplinary study published in PNAS finds that aid provided by the United Nations (UN) in the aftermath of climate-related disasters is driven by humanitarian need rather than by strategic donor interests. The results underline the importance of climate-related hazards for understanding aid disbursements.

Read the article »



#### **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.

- Mohr, C., 2021. When science and politics come together: From depletion to recovery of the stratospheric ozone hole. Ambio 50, 31–34. <a href="https://doi.org/10.1007/s13280-020-01427-4">https://doi.org/10.1007/s13280-020-01427-4</a>
- Marrec, R., Roux, V. L. L. Martin, V. L., Lenoir, J., Brunet, J., Cousins, S.A.O., Smedt, P.D., Deconchat, M., Diekmann, M., Ehrmann, S., Gallet-Moron, E., Giffard,B., Liira, J., Lindgren, J., Valdes, A., Verheyen, K., Wulf, M., and Decocq, G., 2021. Multiscale drivers of carabid beetle (Coleoptera: Carabidae) assemblages in small European woodlands. Global Ecology and Biogeography 30:165–182.
- Kropp, H., Loranty, M.M., Natali, S.M., Kholodov, A.L, Rocha, A.V., Myers-Smith, I.H., Abbott, B.W., Abermann, J., Blanc-Betes, E., Blok, D., Blume-Werry, G., Boike, J., Breen, A.L., Cahoon, S.M.P., Christiansen, C.T., Douglas, T.A., Epstein, H.E., Frost, G.V., Goeckede, M., Høye, T.T., Mamet, S.D., O'Donnell, J.A., Olefeldt, D., Phoenix, G.K., Salmon, V.G., Sannel, A.B.K., Smith, S.L., Sonnentag, O., Vaughn, L., Williams, M., Elberling, B., Gough, L., Hjort, J.,

- Lafleur, P.M., Euskirchen, E.S., Heijmans, M., Humphreys, E.R., Iwata, H., Jones, B.M., Jorgenson, T., Grünberg, I., Kim, Y., Laundre, J., Mauritz, M., Michelsen, A., Schaepman-Strub, G., Tape, K.D., Ueyama, M., Lee, B-Y., Langley, K., Lund, M., 2021. Shallow soils are warmer under trees and tall shrubs across Arctic and Boreal ecosystems. Environmental Research Letters: 16, 015001. <a href="https://doi.org/10.1088/1748-9326/abc994">doi:10.1088/1748-9326/abc994</a>
- Papacharalampous, G., Tyralis, H., Papalexiou, S.M., Langousis, A., Khatami, S., Volpi, E., Grimaldi, S., 2021. "Global-scale massive feature extraction from monthly hydroclimatic time series: Statistical characterizations, spatial patterns and hydrological similarity". Science of the Total Environment. <a href="https://doi.org/10.1016/j.scitotenv.2020.144612">https://doi.org/10.1016/j.scitotenv.2020.144612</a>
- Otto-Bliesner, B. L., Brady, E. C., Zhao, A., Brierley, C. M., Axford, Y., Capron, E., Govin, A., Hoffman, J. S., Isaacs, E., Kageyama, M., Scussolini, P., Tzedakis, P. C., Williams, C. J. R., Wolff, E., Abe-Ouchi, A., Braconnot, P., Ramos Buarque, S., Cao, J., de Vernal, A., Guarino, M. V., Guo, C., LeGrande, A. N., Lohmann, G., Meissner, K. J., Menviel, L., Morozova, P. A., Nisancioglu, K. H., O'ishi, R., Salas y Mélia, D., Shi, X., Sicard, M., Sime, L., Stepanek, C., Tomas, R., Volodin, E., Yeung, N. K. H., Zhang, Q., Zhang, Z., and Zheng, W., 2021. Large-scale features of Last Interglacial climate: results from evaluating the lig127k simulations for the Coupled Model Intercomparison Project (CMIP6) Paleoclimate Modeling Intercomparison Project (PMIP4). Clim. Past: 17, 63–94. https://doi.org/10.5194/cp-17-63-2021
- Kageyama, M., Sime, L. C., Sicard, M., Guarino, M.-V., de Vernal, A., Stein, R., Schroeder, D., Malmierca-Vallet, I., Abe-Ouchi, A., Bitz, C., Braconnot, P., Brady, E. C., Cao, J., Chamberlain, M. A., Feltham, D., Guo, C., LeGrande, A. N., Lohmann, G., Meissner, K. J., Menviel, L., Morozova, P., Nisancioglu, K. H., Otto-Bliesner, B. L., O'ishi, R., Ramos Buarque, S., Salas y Melia, D., Sherriff-Tadano, S., Stroeve, J., Shi, X., Sun, B., Tomas, R. A., Volodin, E., Yeung, N. K. H., Zhang, Q., Zhang, Z., Zheng, W., and Ziehn, T., 2021. A multi-model CMIP6-PMIP4 study of Arctic sea ice at 127 ka: sea ice data compilation and model differences, Clim. Past: 17, 37–62. <a href="https://doi.org/10.5194/cp-17-37-2021">https://doi.org/10.5194/cp-17-37-2021</a>
- Kweku A. Yamoah, Akkaneewut Chabangborn, Sakonvan Chawchai, Sherilyn Fritz, Ludvig Löwemark, Stefanie Kaboth-Bahr, Paula J. Reimer, Rienk H. Smittenberg, Barbara Wohlfarth, 2021. A muted El Niño-like condition during late MIS 3. Quaternary Science Reviews: 254, 106782. https://doi.org/10.1016/j.quascirev.2020.106782
- Lunt, D. J., Bragg, F., Chan, W.-L., Hutchinson, D. K., Ladant, J.-B., Morozova, P., Niezgodzki, I., Steinig, S., Zhang, Z., Zhu, J., Abe-Ouchi, A., Anagnostou, E., de Boer, A. M., Coxall, H. K., Donnadieu, Y., Foster, G., Inglis, G. N., Knorr, G., Langebroek, P. M., Lear, C. H., Lohmann, G., Poulsen, C. J., Sepulchre, P., Tierney, J. E., Valdes, P. J., Volodin, E. M., Dunkley Jones, T., Hollis, C. J., Huber, M., and Otto-Bliesner, B. L., 2021. DeepMIP: model intercomparison of early Eocene climatic optimum (EECO) large-scale climate features and comparison with proxy data. Climate of the Past: 17, 203–227. <a href="https://doi.org/10.5194/cp-17-203-2021">https://doi.org/10.5194/cp-17-203-2021</a>

Please send your newly published publication to  $\underline{bolin@su.se}$  »

#### 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 »

#### Reports guiding the business sector into the future

In order to tackle the climate challenge, Bolin researcher Kevin Noone and others work in a transdisciplinary manner together with the business sector. Kevin has recently been involved in two future-oriented reports:

- "Energy transition outlook 2020. Executive Summary. A global and regional forecast to 2050" published by DNV GL, a risk management and quality assurance company. You can download the report here »
- "Choose Growth. Shaping Europe's future now. A guide to help businesses
  make the choices we need to build a net-zero, socially just, competitive
  Europe" published by Xynteo Europe Delivers, a business-led partnership
  working to build future-fit growth in Europe. You can download the report
  here »

## Researcher's recommendations

Bolin Centre Weekly News occasionally receives suggestions for content to be shared within our community. This week we highlight reading tips from Sina Khatami, at the Department of Physical Geography:

 Web of Science ISI Hot Paper in 2019 and 2020: Blöschl, ... Destouni, Kalantari, Khatami, ... . 2019 Twenty-three unsolved problems in hydrology (UPH) – a community perspective, Hydrological Sciences Journal, https://doi.org/10.1080/02626667.2019.1620507

- Web of Science ISI Highly Cited Paper in 2019 and 2020: Khazaei, Khatami, ...
  Kalantari, Destouni, ... 2019 Climatic or regionally induced by humans? Tracing
  hydro-climatic and land-use changes to better understand the Lake Urmia
  tragedy", Journal of Hydrology, <a href="https://doi.org/10.1016/j.ihydrol.2018.12.004">https://doi.org/10.1016/j.ihydrol.2018.12.004</a>
- Most read paper in Earth and Space Science journal: Popp, Lutz, Khatami, van Emmerik, Knoben 2019 A Global Survey on the Perceptions and Impacts of Gender Inequality in the Earth and Space Sciences, <a href="https://doi.org/10.1029/2019EA000706">https://doi.org/10.1029/2019EA000706</a>.

Do you have tips for the newsletter? We are happy to share them, send them to bolin@su.se.



## Printed version of the Annual Report

Do you need a printed version of the Annual Report 2019? Send an email to bolin@su.se »

The report is also available in a digital format »



#### 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



## 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



Policy report webinar: 10 New Insights in Climate Science 2020 The policy report 10 New Insights in Climate Science 2020 will be released on 27th January 2021 at 16:00 GMT. Join webinar with UNFCCC Executive Secretary Patricia Espinosa on https://futureearth.org/10-insights-2020

The report is based on 10 New Insights in Climate Science 2020 - a Horizon Scan paper, co-authored by Gustaf Hugelius. The paper will be available the same day.



## 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 »

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

Editor: Magnus Atterfors

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#### 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.





