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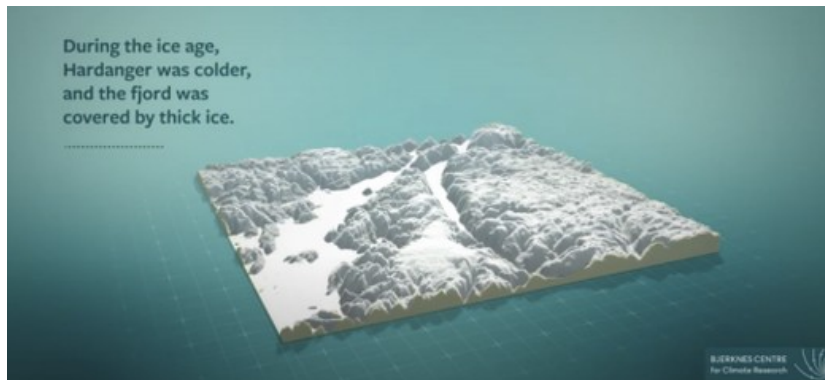
Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 49, 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.



Demise of a glacier, uncovering a fjord

When the last ice age was over, a large glacier covering the 1000 meter deep Hardangerfjord collapsed. These events at the end of the ice age in Norway, resemble what we are about to witness in today's Greenland.

A new study reveals how climate warming caused the great glacier covering Hardanger to collapse around 11.000 years ago. The study is done by a team of scientists from the University of Bergen, the Bjerknes Centre for Climate Research, the University of Svalbard, Stockholm University, and the Bolin Centre for Climate Research.

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



The key to understanding climate change at the Third Pole lies in the past

Scientists from 17 countries have begun an urgent expedition to improve our knowledge of climatic changes on the Tibetan Plateau. The latest IPCC report says

two-thirds of glaciers in the region could be lost by 2100, but further research is badly needed to clarify how this and monsoonal changes will affect fresh water supplies — on which almost one third of the world's population depend.

To find the answers, scientists will look to the past. The international research team includes Natasha Barbolini from the Department of Ecology, Environment and Plant Sciences and the Bolin Centre for Climate Research at Stockholm University. They have recently been granted US \$ 1.5 million from the International Continental Scientific Drilling Program to drill one of the largest and deepest lakes on the Tibetan Plateau. Together with the Himalaya-Hindu Kush mountain range, this area stores the largest amount of snow and ice after the Arctic and Antarctic – and is thus called the world's "Third Pole".

[Read the full article on Dept. of Ecology, Environment and Plant Science's website»](#)



Seminar: Reversing tropical deforestation

Join Research Area 7 seminar on December 10th 01.00 PM - 02.00 PM with speaker Eric Lambin, Geographer and environmental scientist at University of Louvain and Stanford University.

Eric Lambin's research tries to better understand the causes and impacts of land use changes in different parts of the world. His current research focuses on how globalization affects land use and how private and public policies can reduce or even reverse tropical deforestation. This research is gaining in importance as avoiding deforestation and forest regeneration are increasingly recognized as essential nature climate solutions.

[Read more on the Bolin website »](#)



Publications

Recent Bolin Centre scientist 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.

- Åkesson, H., Gyllencreutz, R., Mangerud, J., Svendsen, J.I., Nick, F.M., Nisancioglu, K.M., 2020. Rapid retreat of a Scandinavian marine outlet glacier in response to warming at the last glacial termination. *Quaternary Science Reviews*: 250, 2020, 106645, 0277-3791. <https://doi.org/10.1016/j.quascirev.2020.106645>
- de Nooijer, W., Zhang, Q., Li, Q., Zhang, Q., Li, X., Zhang, Z., Guo, C., Nisancioglu, K.H., Haywood, A.M., Tindall, J. C., Hunter, S.J., Dowsett, H.J., Stepanek, C., Lohmann, G., Otto-Bliesner, B.L., Feng, R., Sohl, L.E., Chandler, M.A., Tan, N., Contoux, C., Ramstein, G., Baatsen, M.L.J., von der Heydt, A.S., Chandan, D., Peltier, W.R., Abe-Ouchi, A., Chan, W.-L., Kamae, Y., and Brierley, C. M., 2020. Evaluation of Arctic warming in mid-Pliocene climate simulations. *Clim. Past*: 16, 2325–2341. <https://doi.org/10.5194/cp-16-2325-2020>
- Shi, A., Chakrawal, A., Manzoni, S., Fischer, B.M.C., Nunan, N., and Herrmann, A., 2021. Substrate spatial heterogeneity reduces soil microbial activity. *Soil Biology and Biochemistry* 152, 108068, [doi:10.1016/j.soilbio.2020.108068](https://doi.org/10.1016/j.soilbio.2020.108068)
- Hamm, A., Arndt, A., Kolbe, C., Wang, X., Thies, B., Boyko, O., Reggiani, P.,

Scherer, D., Bendix, J., and Schneider, C., 2020. Intercomparison of Gridded Precipitation Datasets over a Sub-Region of the Central Himalaya and the Southwestern Tibetan Plateau. *Molecular Diversity Preservation International (MDPI)*. <https://www.mdpi.com/2073-4441/12/11/3271>

- Kapás, R. E., Plue, J., Kimberley, A., & Cousins, S.A.O., 2020. Grazing livestock increases both vegetation and seed bank diversity in remnant and restored grasslands. *Journal of Vegetation Science*: 31(6), 1053–1065. <https://doi.org/10.1111/jvs.12956>
- Skelton, A., Kirchner, N., and Kockum, I., 2020. Skewness of Temperature Data Implies an Abrupt Change in the Climate System Between 1985 and 1991. *Geophysical Research Letters*: 47, 23. <https://doi.org/10.1029/2020GL089794>
- Wilson, S.T., Al-Haj, A.N. et al. (inkl Thornton, B.F., and Crill, P.M., 2020. Ideas and perspectives: A strategic assessment of methane and nitrous oxide measurements in the marine environment. *Biogeosciences*. [doi:10.5194/bg-17-5809-2020](https://doi.org/10.5194/bg-17-5809-2020)
- Seco, R., Holst, T., Matzen, M.S., Westergaard-Nielsen, A., Li, T., Simin, T., Jansen, J., Crill, P., Friborg, T., Rinne, J., and Rinnan, R., 2020. Volatile Organic Compound fluxes in a subarctic peatland and lake. *Atmos. Chem. Phys.* [doi:10.5194/acp-20-13399-2020](https://doi.org/10.5194/acp-20-13399-2020)
- Wik, M., Thornton, B.F., Varner, R.K., McCalley, C., and Crill, P.M., 2020. Stable methane isotopologues from northern lakes suggest ebullition is dominated by sub-lake scale processes. *J. Geophys. Res. Biogeosci.* [doi.10.1029/2019JG005601](https://doi.org/10.1029/2019JG005601)
- Chang, K.-Y., Riley, W.J., Crill, P.M., Grant, R.F., Rich, V.I., and Saleska, S.R., 2020. Hysteretic temperature sensitivity of wetland CH₄ fluxes explained by substrate availability and microbial activity. *Biogeosciences*. [doi:10.5194/bg-17-5849-2020](https://doi.org/10.5194/bg-17-5849-2020)
- Stoffelen, A., Benedetti, A., Borde, R., Dabas, A., Flamant, P., Forsythe, M., Hardesty, M., Isaksen, L., Källén, E., Körnich, H., Lee, T., Reitebuch, O., Rennie, M., Riishøjgaard, L-P., Schyberg, H., Straume, A.G., and Vaughan, M., 2020. Wind Profile Satellite Observation Requirements and Capabilities. *Bulletin Am Met Soc.* <https://doi.org/10.1175/BAMS-D-18-0202.1>

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

BOLIN CENTRE EVENTS

10
December

Bolin Centre Seminar Series | Research Area 7

Time & venue: Dec 10 at 13h00, Zoom

Title: Reversing tropical deforestation

Speaker: Eric Lambin, geographer and environmental scientist at University of Louvain and Stanford University.

[Read more on the Bolin website»](#)

11
December

Bolin Centre Journalist Breakfast

Time & venue: Dec 11 at 08h00-09h00, Zoom

Welcome to our second breakfast session with the theme Climate Science in the Media. This session highlights what the general public would like to know about climate issues, and what media and researchers roles are in this, based on a new study from the Swedish Environmental Protection Agency. We will also offer exclusive insights from our latest research. To ensure inclusivity, the breakfast will be conducted in both Swedish and English.

[Read more and registration on the Bolin website»](#)

OTHER EVENTS AND INFORMATION

10
December

Workshop: Reach an international audience via The Conversation

Time & venue: 10 Dec, 13.00-15.00 via Zoom

The Conversation, with the tagline "Academic rigor, journalistic flair", publishes popular science articles for an international audience and reaches 38 million readers every month. On December 10, one of the editors of The Conversation will give a workshop for researchers at Stockholm University who wants to learn how to reach out.

Deadline for registration: 4 Dec.

[Read more and registration 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 (Communications)
- Annika: 072-148 91 49, annika.granebeck@su.se (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 bolin@su.se.

Editor: Magnus Atterfors

Foto: Martin Jakobsson, 3D model of the Hardanger fjord from animation by Eli Muriaas, Torsten Haberzettl, dyod.be

Stay updated

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

