

## Bolin Centre for Climate Research

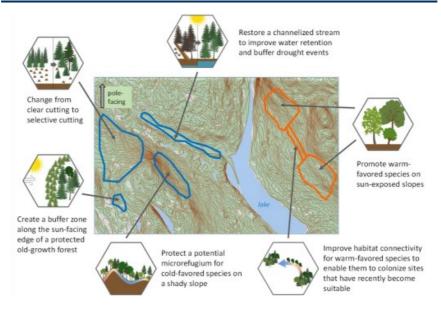
A collaboration between Stockholm University, KTH and SMHI

Week 49, 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.





# Landscape perspective important for climate adaptation of forest biodiversity conservation

People working with conservation of biodiversity in managed forest landscapes need to complement their toolbox with tools specifically designed for climate adaptation. In a new paper in Conservation Biology, Kristoffer Hylander, Caroline Greiser, Ditte Christiansen and Irena Koelemeijer present a list of tools for biodiversity conservation in managed forest under a changing climate.

The paper is published in the category "Conservation practice and policy" and written to target not only researchers, but also practitioners and policymakers interested in biodiversity conservation and sustainable forestry in managed forest ecosystems.

Read the article on the Department of Ecology, Environment and Plant Sciences' website »

### Lärdomar från pandemin kan användas vid klimatomställning

Trots att Coronapandemin fortfarande pågår har forskare börjat dra slutsatser från de studier som startade när samhällen stängde ner för att begränsa smittspridningen. De har bland annat analyserat förändringar i utsläpp och påverkan på klimat och luftmiljö.

Läs artikeln på SMHI Rossby Centre's webbplats »

#### Arctic Avenue

Dear members of the Arctic Avenue community,

You are warmly welcome to participate in the 3rd annual Arctic Avenue meeting. The meeting will be held in Stockholm on the 27th-28th of January 2022 (noon to noon). This meeting will focus on the future direction and funding possibilities of Arctic Avenue and hence takes the form of a brainstorming workshop. A more detailed agenda will be distributed in December.

To register for the January workshop, please send an email to kaarina.weckstrom@helsinki.fi and annika.granebeck@su.se

We will have the final Arctic Avenue meeting during the 21st - 25th of August at the Kilpisjärvi Research Station, where the focus will be on Arctic Avenue research & the exciting outcome of Arctic Avenue projects.

Welcome!

#### New Formas grants

Several Bolin Centre researchers were successful in Formas' annual open call for research projects:

- Kristoffer Hylander, Climate adaptations for forest biodiversity: identifying refugia for retreating cold-favouring species, 2 999 199 SEK
- Anne Soerensen, Tools for investigating spatio-temporal variability of contaminant concentrations in Baltic Sea biota – mercury as a case study, 2 999 200 SEK
- Torben Koenigk, The fate of the Gulf Stream in a changing climate (FutureGS), 2 994 000 SEK
- Martin Jakobsson, Sea-level rise contribution from the North Greenland Ice Sheet in a warming climate, 2 999 900 SEK

See full list on Formas' website »

#### Partnership for Anthropocene Solutions

Kevin Noone (PI), with colleagues Alasdair Skelton and Annika Granebeck, along with Stockholm Environment Institute, Linköping University and Klimatriksdagen have received a Formas grant for the period 2021-12-01 - 2023-11-30 of 3,990,260 SEK. The project is named Partnership for Anthropocene Solutions, and it will develop simpler, more transparent and comparable methods by which to assess, report and compare the climate impacts of organizations' activities.

#### New grant from Swedish Research Council

New VR project grant on "Science for a secure society: Hydro-climatic hazard, risk, and crisis management in Sweden (CrisAct)" to Zahra Kalantari (PI), Navid Ghajarnia, Samaneh Seifollahi, Gia Destouni, with colleagues at SEI and KTH. The grant is SEK 6 784 677 for the project period 2022-2055.

See full list on the Swedish Research Council's website »

#### Research Area 3 seminar published online

The Bolin Centre Seminar with speaker Josefin Thorslund, titled **Freshwater salinisation – drivers and impacts in river basins around the world**, is published online.

Watch the seminar via the Bolin Centre website »

# Call for abstracts: EGU22 session CR4.3/OS1 "Ice shelves and tidewater glaciers - dynamics, interactions, observations, modelling"

Dear Colleagues,

In these cold and industrious times, we would like to warmly invite you to submit contributions to the session CR4.3/OS1 "Ice shelves and tidewater glaciers - dynamics, interactions, observations, modelling" at the EGU General Assembly 2022 that will take place in Vienna on 3-8 April 2022.

The session site with imore information and the abstract submission link can be found at: <a href="https://meetingorganizer.copernicus.org/EGU22/session/42523">https://meetingorganizer.copernicus.org/EGU22/session/42523</a> Deadline for abstract submission: 12 January 2022, 13:00 CET

We are looking forward to your exiting contributions from the Bolin Centre!

Best regards, Inga Monika Koszalka, Nicolas Jourdain, Adrian Jenkins, Rachel Carr, Angelika Humbert

#### Call for abstracts: EGU22 sessions

Dear colleagues,

We would like to draw your attention to two upcoming Southern Ocean sessions at the EGU General Assembly 2022 in Vienna, 3–8 April 2022:

### OS1.10 The Southern Ocean in a changing climate: open-ocean physical and biogeochemical processes

More information and abstract submission: <u>https://meetingorganizer.copernicus.org</u> /EGU22/session/42190

## **OS1.11** Under cover: The Southern Ocean's connection to sea ice and ice shelves

More information and abstract submission: <u>https://meetingorganizer.copernicus.org</u> /EGU22/session/42181

The sessions will be run in a hybrid EGU vPICO format, allowing for both in-person and virtual participation (<u>https://egu22.eu/about/provisional\_meeting\_format.html</u>). We will make sure that sufficient time for discussion is allocated to our sessions.

Deadline for abstract submission: 12 January 2022 at 13:00 CET.

We hope to see many of you in Vienna and make this an exciting and inspiring session! Please feel free to circulate this announcement to colleagues who may be interested.

Kind regards, Lavinia, Camille, Alex, Dan, Chris, and Torge, Xylar, Alice, and Ralph

#### Laila Islamovic's last day at the Bolin Centre

Bolin Centre communicator and coordinator Laila Islamovic ends her job at the centre this week. "It has been two exciting years and I have really appreciated working with you all. I hope to see you in the future", she says.



#### **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.

- Varner R.K., Crill, P.M., Frolking, S., McCalley, C.K., Burke, S.A., Chanton, J.P., Holmes, M.E., Isogenie Project Coordinators, Saleska, S., and Palace, M.W., 2021. Permafrost thaw driven changes in hydrology and vegetation cover increase trace gas emissions and climate forcing in Stordalen Mire from 1970 to 2014. Philosophical Transactions Royal Society A 380: 20210022. https://doi.org/10.1098/rsta.2021.0022
- Hough, M.A., McCabe, S., Vining, S.R., Pedersen, E.P., Wilson, R.M., Lawrence, R., Chang, K.-Y., Bohrer, G.I., The IsoGenie Coordinators, Riley, W., Crill, P., Varner, R.K., Blazewicz, S.J., Dorrepaal, E., Tfaily, M.M., Saleska, S.R., and Rich, V., 2021. Coupling plant litter quantity to a novel metric for litter quality explains C storage changes in a thawing permafrost peatland. Global Change Biology. DOI: 10.1111/gch.15970
- Emerson, J.B., Varner, R.K., Wik, M., Parks, D.H., Neumann, R.B., Johnson, J.E., Singleton, C.M., Woodcroft, B.J., Tollerson II, R., Owusu-Dommey, A., Binder, M., Freitas, N.L., Crill, P.M., Saleska, S.R., Tyson, G.W., and Rich, V.I., 2021. Diverse sediment microbiota shape methane emission temperature sensitivity in Arctic lakes. Nature Communications 12, 5815. doi:10.1038/s41467-021-25983-9
- Łakomiec, P-, Holst, J., Friborg, T., Crill, P., Rakos, N., Kljun, N., Olsson, P.-O., Eklundh, L., Persson, A., and Rinne, J., 2021. Field-scale CH4 emission at a subarctic mire with heterogeneous permafrost thaw status. Biogeosciences, 18, 5811–5830, https://doi.org/10.5194/hg-18-5811-2021
- Kuhn, M.A., Varner, R.K., Bastviken, D., Crill, P., MacIntyre, S., Turetsky, M., Walter Anthony, K., McGuire, A.D., and Olefeldt, D., 2021. BAWLD-CH4: a comprehensive dataset of methane fluxes from boreal and arctic ecosystems. Earth Syst. Sci. Data, 13, 5151–5189. <u>https://doi.org/10.5194/essd-13-5151-2021</u>
- Olefeldt, D, Hovemyr, M., Kuhn, M.A. et al. inkl. Crill, P., 2021. The Boreal– Arctic Wetland and Lake Dataset (BAWLD). Earth Syst. Sci. Data, 13,

5127-5149. https://doi.org/10.5194/essd-13-5127-2021

- Oldeman, A. M., Baatsen, M. L. J., von der Heydt, A. S., Dijkstra, H. A., Tindall, J. C., Abe-Ouchi, A., Booth, A. R., Brady, E. C., Chan, W.-L., Chandan, D., Chandler, M. A., Contoux, C., Feng, R., Guo, C., Haywood, A. M., Hunter, S. J., Kamae, Y., Li, Q., Li, X., Lohmann, G., Lunt, D. J., Nisancioglu, K. H., Otto-Bliesner, B. L., Peltier, W. R., Pontes, G. M., Ramstein, G., Sohl, L. E., Stepanek, C., Tan, N., Zhang, Q., Zhang, Z., Wainer, I., and Williams, C. J. R.: Reduced El Niño variability in the mid-Pliocene according to the PlioMIP2 ensemble, Clim. Past, 17, 2427-2450. https://doi.org/10.5194 /cp-<u>17-2427-2021</u>
- Fernandez-Anez, N., Krasovskiy, A., Müller, M., ... Destouni, G., Ghajarnia, N., Seifollahi-Aghmiuni, S., Kalantari, Z., et al. Current Wildland Fire Patterns and Challenges in Europe: A Synthesis of National Perspectives. Air, Soil and Water Research. doi:10.1177/11786221211028185
- Kapović Solomun, M., Ferreira, C S.S., Zupanc, V., Ristić, R., Drobnjak, A., & Kalantari, Z., 2021. Flood legislation and land policy framework of EU and non-EU countries in Southern Europe. WIREs Water , e15596. https://doi.org /10.1002/wat2.1566
- Horn, B., Ferreira, C. & Kalantari, Z., 2021. Links between food trade, climate change and food security in developed countries: A case study of Sweden. Ambio (2021). https://doi.org/10.1007/s13280-021-01623-w

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



#### Baltic Breakfast: Climate change impact on the Baltic Sea Time: 14 December, 08h30-09h15

Speakers: Prof. Dr. Markus Meier, Leibniz Institute for Baltic Sea Research Warnemünde

Prof. Anna Rutgersson, Dep of Earth Sciences, Uppsala University Venue: The webinar will be broadcasted on Stockholm University Baltic Sea Centre's website. Read more »

Research seminar: Clouds in climate models and atmospheric

14	
Dec	

Research seminari eloudo in emilate models and atmosp
observations
Time: 14 December, 11h15-11h45
Speaker: Peter Kuma, Postdoc at MISU
Location: Hybrid - Rossbysalen and zoom:
https://stockholmuniversity.zoom.us/j/62994758697

16
Dec

Research seminar: The role of CCN on the Arctic mixed-phase clouds turbulent state Date: 16 December, 14h15-14h45 Speaker: Antonios Dimitrelos, Phd Student at MISU Venue: Zoom: https://stockholmuniversity.zoom.us/j/66901028705 Organizers: Department of Meteorology

16
Dec

Research seminar: (master thesis)	Idealized models of Polar Amplification
Date: 16 December,	14h45-15h15
,	n Kallmyr, Phd Student at MISU
	//stockholmuniversity.zoom.us/i/66824462127
Organizers: Depart	

#### 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 <u>annika.granebeck@su.se</u> (Coordination)

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 Photo: Martin Jakobsson

#### Stav updated

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

