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Bolin Centre for Climate Research

A collaboration between Stockholm University, KTH and SMHI

Week 39, 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.



Bolin Centre Seminar Series RA8

Title: Variation in the thermal tolerance of plants at global and local scales

Speaker: Aelys M. Humphreys, Department of Ecology, Environment and Plant Science

Time: 20 October, 14h00-15h00

Location: William Olsson and Zoom

Temperature has long been considered one of the strongest determinants of plant distribution patterns globally. This is particularly true for cold temperatures because the physiology required to tolerate cold and freezing conditions is complex and assumed to be difficult to evolve. Yet, since their origins in the warm, wet tropics, flowering plants have clearly transitioned to temperate climates multiple times independently. Furthermore, evidence to suggest that cold tolerance can evolve relatively quickly is accumulating. Aelys M. Humphreys will present her ongoing research that addresses this contradiction.

[Read more on the Bolin website »](#)

TARFALA
RESEARCH
STATION

News September 2021



You'll find News September 2021 from Tarfala Research Station as an attachment in this e-mail.

Urban butterflies and moths have evolved adaptations that extend their flight season



A new study shows that butterflies and moths tend to be active later in the fall in urban than in rural environments. Experiments demonstrate that their response to seasonal variation in day length has evolved, resulting in a later start of the overwintering state, called diapause, in urban populations.

[Read more on the Department of Zoology's website »](#)

More infrastructure grants

In the last newsletter, we wrote about several infrastructure grants. There are two more grants involving Bolin Centre researchers we missed to mention:

SITES, the Swedish Infrastructure for Ecosystem Sciences, that secured funding from [the Swedish Research Council \(VR\)](#) until 2027. Tarfala Research Station is one of the many field stations that are included in SITES. Main applicant: SLU.

In June, [the Swedish Research Council \(VR\)](#) also awarded grants for investments in existing research infrastructure to Baltic Sea Observatory for coastal ecosystems and climate change. Total amount: 7.9 MSEK. Main applicant: Christoph Humborg

Welcome to nominate the Bert Bolin Climate Lecturer 2022

To honour Professor Bolin, after which the Bolin Centre is named, the Faculty of Science at Stockholm University established the annual Bert Bolin Climate Lecture in 2008, shortly after Bert Bolin had passed away. Every year, a distinguished Bert Bolin Climate Lecturer is invited to Stockholm to hold a popular science lecture and a science seminar at the Bolin Centre for Climate Research. A list of [previous Bert Bolin Lecturers is found here »](#)

We have the pleasure to invite you to submit nominations for the Bert Bolin Climate Lecturer 2022! Please use the attached nomination form in the e-mail of the newsletter, and return it to us no later than October 14, 2021. If you have submitted a nomination in a previous year which you would like us to re-consider for 2022, it is sufficient to send an email stating this request to nina.kirchner@natgeo.su.se and alasdair.skelton@geo.su.se. Your contribution is highly valued and appreciated, and we are looking forward to receiving your nomination, and an inspiring and exciting Bert Bolin Climate Lecture in 2022!

Best wishes
Nina and Alasdair

Sök stöd till geovetenskaplig forskning 2022

Sveriges geologiska undersökning (SGU) utlyser härmed medel för forskningsprojekt inom tillämpad forskning och riktad grundforskning inom det geovetenskapliga området med inriktning mot grundvatten. Ansökan stänger den 10 december 2021 klockan 14.00.

[Läs mer på Sveriges geologiska undersökning SGUs webbplats »](#)



Publications

Recent Bolin Centre 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.

- Strauss, J., Abbott, B., Hugelius, G., Schuur, E., Treat, C., Fuchs, M., Schädel, C., Ulrich, M., Turetsky, M.R., Keuschnig, M. and Biasi, C., 2021. Permafrost. In: FAO and ITPS, Recarbonizing global soils: A technical manual of recommended management practices. Volume 2: Hot spots and bright spots of soil organic carbon. pp 127–147. Food and Agriculture Organization of the United Nations, Rome, Italy. <https://doi.org/10.4060/cb6378en>
- Varsadiya, M., Urich, T., Hugelius, G. and Bárta, J., 2021. Fungi in Permafrost-Affected Soils of the Canadian Arctic: Horizon-and Site-Specific Keystone Taxa Revealed by Co-Occurrence Network. *Microorganisms*, 9(9), p.1943. [doi: 10.3390/microorganisms9091943](https://doi.org/10.3390/microorganisms9091943)
- Mays, C., McLoughlin, S., Frank, T.D., Fielding, C.R., Slater, S.M., Vajda, V., 2021. Lethal microbial blooms delayed freshwater ecosystem recovery following the end-Permian extinction. *Nature Communications*, 12. [doi: 10.1038/s41467-021-25711-3](https://doi.org/10.1038/s41467-021-25711-3)
- Frank, T.D., Fielding, C.R., Winguth, A.M.E., Savatic, K., Tevyaw, A., Winguth, C., McLoughlin, S., Vajda, V., Mays, C., Nicoll, R., Bocking, M., Crowley, J.L., 2021. Pace, magnitude, and nature of terrestrial climate change through the end Permian extinction in southeastern Gondwana. *Geology* 49, 1089–1095. <https://doi.org/10.1130/G48795.1>
- McLoughlin, S., Halamski, A.T., Mays, C., Kvaček, J., 2021. Neutron tomography, fluorescence and transmitted light microscopy reveal new insect damage, fungi and plant organ associations in the Late Cretaceous floras of Sweden. *GFF*. [doi: 10.1080/11035897.2021.1896574](https://doi.org/10.1080/11035897.2021.1896574)

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

Bolin Centre researchers in media

The latest media-related posts published on our website:

- [Fredrik Charpentier i SVT: "Se de 23 000 år gamla mänskliga fotspåren i Nordamerika" »](#)
- [Salim Belyazid i SVT: "Slaget om skogen: 1 Naturskog eller Turboskog" »](#)
- [Gustaf Hugelius kommenterar klimatförändringarna i Arktis i SVT »](#)
- [Michael Tjernström i TV4: "Antalet dagar över 50 grader har fördubblats" »](#)



Colloquium: STRESSED-OUT! Combined effects of multiple stressors on terrestrial and aquatic ecosystems

Date: Thursday 7 October

Time: 14h00

Location: Zoom

[Read more on Department of Environmental Science's website »](#)



Baltic Sea Day 2021

Date: Thursday 7 October 2021 9h00-16h30

Location: Vivi Täckholm lecture hall, NPQ-building, Svante Arrhenius väg 20 & online

The Baltic Sea Day will high-light Stockholm University's ongoing research from seven departments on different anthropogenic pressures in the Baltic Sea, as well as methods and techniques that can be used in assessments and management support.

[Read more on Baltic Sea Centre's website »](#)



CNDS Forum on Natural Hazards and Disasters

Date: 12 October, 09h30–17h00

Location: Zoom

Organiser: Centre of Natural Hazards and Disaster Science

[Read more about the conference »](#)



Bolin Centre Seminar Series RAS

Title: Variation in the thermal tolerance of plants at global and local scales

Date: Wednesday 20 October

Time: 14h00-15h00

Speaker: Aelys M. Humphreys, Department of Ecology, Environment and Plant Science, Stockholm University

Location: William Olsson and Zoom

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

20

Oct

Arctic Avenue Fall Call 2021

Application deadline: October 20

You are welcome to submit your application!

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

27

Oct

Multifunktionella våtmarker: realistiskt mål eller orealistisk dröm

Konferensen sammanför forskare, rådgivare och beslutsfattare till en diskussion om mål och medel kring restaurering och nyanläggning av våtmarker. Programmet har en bred ansats, med föredrag från såväl hydrologiska, biogeokemisk, ekologiska som samhällsvetenskapliga perspektiv.

Deadline för anmälan: 15 oktober

[Läs mer på Bolincentrets webbplats »](#)

18-19

Nov

Bolin Days 2021

Save the date!

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)
- Laila: 072-444 35 25 laila.islamovic@su.se (Communications & 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, Jan-Niklas Nuppenau, Sami Kivelä

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