



Bolin Days 2019

Welcome to the 11th Bolin Days!

We welcome you to cross-disciplinary sessions on *Earth surface-atmosphere interactions, Proxies and Models in Climate Research, Changes in climate and biodiversity on multiple timescales* and *Carbon sources and sinks*. In addition, in depth seminars on *Climate Science in the Humanities* and *Greenland expeditions* take place this year as well as a *Special session* with current items concerning the Bolin Centre.

There will be a poster exhibition and a poster competition for PhD students as well as a photo exhibition with our scientists' field work photos, from various disciplines, in the foyer. You will have the opportunity of meeting with our database team and modelling team as well as learning more about our mentoring scheme. Finally, welcome to our annual dinner followed by a ceilidh dance with live music.

We look forward to welcoming you to two days filled with climate science!



Bolin Days 2019

Wednesday, November 20th

Nordenskiöld room and foyer, Geoscience building, Stockholm University

09:00-10:00	Opening of the 11th Bolin Days ❖ Opening Ceremony with Presentation of the Bolin Centre Nina Kirchner ❖ Bolin Centre Database Anders Moberg & Rezwan Mohammad ❖ Bolin Centre Modelling Anna Lewinschal & Qiong Zhang ❖ Climate Arena David Paulsson & Elisabeth Däcker ❖ Bolin Centre Mentorship Program Malin Kylander ❖ Climate Research School Alasdair Skelton	Chair: Nina Kirchner
10:00-10:30	Fika Poster preview, mingle around the stands and photo exhibition	
10:30-12:00	Earth surface-atmosphere interactions: Physical processes, changes and their impact. ❖ From a polar to a marine environment: has the retreat in Arctic sea ice led to a shift in aerosol optical properties? Dominic Heslin-Rees ❖ Moisture recycling and tipping points in tropical forests Line Gordon ❖ Size-resolved black carbon distributions Roxana Cremer ❖ Agricultural productivity through the lens of hydrologic function. Anna Scaini ❖ New Particle Formation in the Central Arctic Ocean Andrea Baccarini ❖ Wetlandscape size thresholds for ecosystem service delivery: evidence from the Norrström drainage basin, Sweden Imenne Åhlén	Chairs: Matt Salter and Kristoffer Hylander
12:00-13:00	Lunch with sandwiches Poster preview, mingle around the stands and photo exhibition	



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13:00–14:30	Proxies and Models in Climate Research ❖ Fossil pollen of <i>Ephedripites</i>: a global climate proxy for warm, dry environments since the Permian? Natasha Barbolini, DEEP ❖ Arctic closure as a trigger for Atlantic overturning at the Eocene-Oligocene Transition David Hutchinson, IGV ❖ (When) is convection-permitting modelling important in the northern latitudes? Danijel Belušić, SMHI ❖ Quantifying climate feedbacks in the middle atmosphere using WACCM Maartje Sanne Kiulman, MISU & NG ❖ Future projections with EC-Earth3 for CMIP6 Klaus Wyser, Rossby Centre, SMHI	Chairs: Thorsten Mauritsen and Margret Steinthorsdottir
14:30–15:00	Fika Poster preview, mingle around the stands and photo exhibition	
15:00–16:30	Changes in climate and biodiversity on multiple timescales ❖ The impact of climate on voltinism and the ecology and evolution of insect communities Ayco Tack, DEEP ❖ Temporal scale changes in species distributions in boreal peatlands: Store Mosse, south-central Sweden (preliminary results) Eleonor Ryberg, IGV ❖ Paleodust deposition and peat growth in south-central Sweden during 8000 years Jenny Sjöström, IGV ❖ Evolution of plant economics in a water limited environment Magnus Lindh, NG ❖ Rich biota inferred from a 130,000 yrs long sediment record in N Finland indicates extended interglacial warmth during the last glacial cycle Karin Helmens, NRM ❖ Local adaptation to seasonal cues in a range-expanding butterfly Mats Ittonen, Zoology	Chairs: Frederik Schenk and Sara Cousins
16:00–	PICO Poster Presentations followed by Poster Competition Refreshments for purchase and Bolin Centre give-aways	Chair: Alasdair Skelton



Bolin Days 2019

Thursday, November 21st

Nordenskiöld room and foyer, Geoscience building, Stockholm University

9:00-10:00	Climate Science in the Humanities ❖ Climate change, natural disasters, and United Nations disaster relief Lisa Dellmuth ❖ Art in the Time of Greenwashing: Waterfront Redevelopment in Tokyo Ewa Machotka ❖ Functions and services of man-made wetlands Jerker Jarsjö ❖ Medieval normative texts as proxy sources for meteorological normality Dag Retsö ❖ Glacial archeology, a new and unwanted research field Per Holmlund & Kerstin Lidén	Chair: Nina Kirchner
10:00-10:30	Fika Poster preview, mingle around the stands and photo exhibition	
10:30-12:00	Carbon sources and sinks ❖ The Circum-Arctic Shelf Sediment CARbon DatabasE (CASSCADE): Spatial patterns and fluxes of terrestrial carbon input to the Arctic Ocean Jannik Martens, ACES ❖ Eddy covariance measurement of surface-atmosphere CO₂ flux in the High Arctic John Prytherch, MISU ❖ Global Terrestrial Carbon Cycling: integrating data and models Anders Ahlström, MERGE, Lund University ❖ Understanding the seasonality of climate change for impacts on permafrost, snow and GHG emission in Arctic areas: Experience from combining models and data. Per-Erik Jansson, KTH ❖ The adaptive role of lignin in plants to ensure the geobiochemical cycles of carbon and water Edouard Pesquet, DEEP ❖ The impact of climate changes on the Sweden's glaciers using InSAR technique - Tarfala case study Mehdi Darvishi, NG	Chairs: Volker Brüchert and Anne Soerensen



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12:00-13:00	Lunch with sandwiches Poster preview, mingle around the stands and photo exhibition	
12:00-13:00	Aerosol-climate effects in extreme environments: Insights from measurements in Central Asia, the Southern Ocean and the high Arctic Julia Schmale École Polytechnique Fédérale de Lausanne & Paul Scherrer Institute, Switzerland <i>ACES seminar parallel with lunch in the Ahlmann room, third floor of the Geoscience building.</i>	
13:00-15:00	Greenland expeditions ❖ Ryder Expedition 2019 - introduction by Martin Jakobsson, IGV, followed by speed talks. ➤ Oceanography on the Ryder Expedition Christian Stranne, IGV ➤ Water and sediment chemistry studies during the Ryder Expedition Volker Brüchert, IGV ➤ Calving at Ryder Glacier Felicity Holmes, NG ➤ Driftwood in northern Greenland, what is it good for? Björn Gunnarson, NG ➤ Terrestrial ecology in a high Arctic environment - observations from the Ryder expedition Johannes Måsviken, NRM ❖ Ikka Fjord project 2019 - Multibeam mapping of the Ikka Column Garden Richard Gyllencreutz, IGV ❖ Mining legacies in south-east Greenland Ninis Rosqvist & Carl Österlin, NG ❖ EGRIP - drilling through the Northeast Greenland Ice Stream Margareta Hansson, NG	Chair: Martin Jakobsson



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15:00-15:30	Fika Poster preview, mingle around the stands and photo exhibition	
15:30-16:30	Special session ❖ FORCeS - Constrained aerosol forcing for improved climate projections Annica Ekman, MISU, and Ilona Riipinen, ACES ❖ Bolin Centre Database Anders Moberg, NG, and Rezwan Mohammad ❖ Climate Answers by Scientists Léon Chafik, MISU	Chair: Alasdair Skelton
16:30-17:00	Closing remarks Presentation of poster competition winner	Chair: Alasdair Skelton
17:00-18:00	Refreshments	
18:00	Dinner followed by pub and ceilidh dance with live music	