

## OCEAN:ICE News – December 2023



*OCEAN:ICE is a Horizon Europe project, funded by the European Commission and UKRI. OCEAN:ICE stands for Ocean-Cryosphere Exchanges in Antarctica: Impacts on Climate and the Earth System.*

**OCEAN:ICE News** is a monthly newsletter updating about the project's progress, results, and other exciting events! Be sure to follow us on LinkedIn to stay informed.

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### Season's Greetings!

As we wrap up 2023, congratulations to the entire OCEAN:ICE community for a scientifically bustling year. It's inspiring to see the project achieve its deliverables and milestones.

As we shift our focus to 2024, we are wishing you all continued success, more deliverables, and a plethora of accomplishments in scientific pursuits. May the new year bring fresh insights and discoveries that further enhance our understanding of the intricate dynamics shaping our planet's climate.

In the spirit of the season, we are sending warm wishes to each of you for a joyful and restful break. Here's to a successful 2024, filled with exciting breakthroughs and continued collaboration.

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### Catching up on the Latest OCEAN:ICE Activities

#### OCEAN:ICE at the One Planet - Polar Summit and COP28

The OCEAN:ICE project had representation at two major international science meetings in recent weeks. The first was the [One Planet – Polar Summit](#), held at the National Museum of Natural History, Paris, during November 8-10th and hosted by H.E. Emmanuel Macron, the President of the French Republic. This was a high level gathering that drew together researchers and scientists from over forty glacial and polar nations to

share their findings and observations with experts from international agencies including the [Intergovernmental Panel on Climate Change](#) (IPCC), as well as with the heads of international institutions, Non-Governmental Organisations, representatives of indigenous peoples and local communities, the private sector, and the political leaders of countries present in the Arctic, Antarctic and glacial worlds. The objective of the summit was to mobilize leaders from across these sectors to identify actions and work together to develop new mechanisms to tackle the threat to the poles presented by climate change.

[Prof Michael Meredith](#) from [British Antarctic Survey](#) attended this summit, and gave a presentation in a session dedicated to the Southern Ocean. He gave an overview of recent changes in Southern Ocean properties and circulation, with an emphasis on new findings since the most recent IPCC assessment report. This included discussion of the dramatic recent sea ice changes that have occurred, the importance of the Southern Ocean to global circulation and climate, and the compelling need to strengthen further the ocean observing system in the seas around Antarctica. The summit was deemed a major success, with new routes to pursue these issues identified, including enhanced leverage of funding from the private sector. The headline outcome was a major new commitment of funding to polar research by France, with €1bn committed between now and 2030 including the commissioning of a new polar research vessel.

Michael also attended the [COP28](#) meeting in Dubai, the latest annual gathering of UN Governments and representative agencies to negotiate the international response to climate change. Drawing on research from OCEAN:ICE and other programmes, he gave two presentations in the Cryosphere Pavilion that were also streamed online to a virtual audience. One of these was in a panel event that discussed the latest scientific findings concerning climate change in the Arctic, its impacts, and possible policy responses. The second was a component of a session that considered both polar oceans and the multiple threats to them posed by different aspects of climatic change, including ocean heating, freshening, acidification, ice loss, and deoxygenation. It further discussed the impacts of these changes on the marine ecosystem, local and indigenous communities, and the global system more widely. The outcomes of COP28 are inevitably controversial, with some landmark new declarations indicating progress in areas, but with many concluding that progress remains too slow to avert the most dangerous impacts of climate change. Nonetheless, full consideration of the polar regions in the negotiations and decision-making process is critical, and efforts to ensure this must be sustained.

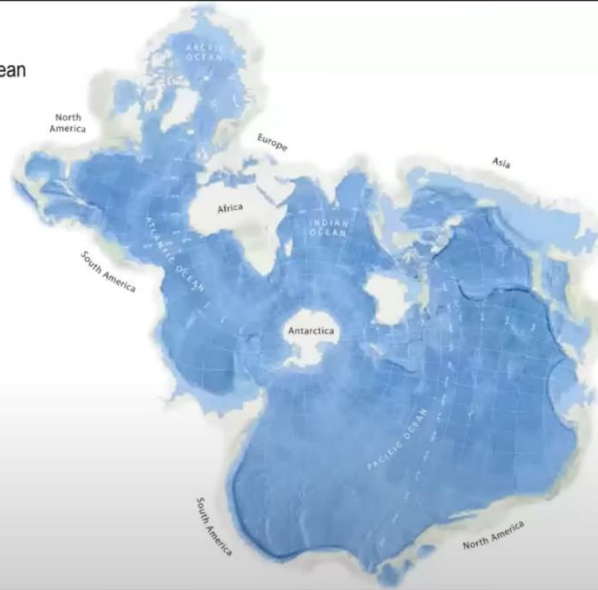




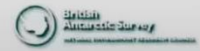
Prof. Michael Meredith meeting at COP28 with Prof. Paul Monks, the UK Government's Chief Scientific Advisor for Energy Security and Net Zero.



There is only one ocean



(Meredith, *Nature Comms.*, 2022)



COP28 Cryosphere Pavilion

Livestream of Michael Meredith's presentation in the Multiple Threats to the Polar Oceans session in the COP28 Cryosphere Pavilion.

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## Climate Coffees

Since its relaunch the [Climate Coffee series](#) has been in full swing. Further down in the *Upcoming Climate Coffees* section you may find the busy lineup for upcoming Climate Coffees in 2024, and if you have missed any of the recent ones, don't you worry, you may catch up [here](#).

## Past Climate Coffees

### Climate Coffee with Kathryn Gunn (University of Southampton) on Recent reduced abyssal overturning and ventilation in the Australian Antarctic Basin

14 December 2023



Climate Coffee with Kathryn Gunn | Antarctic

# Climate Coffee

Kathryn Gunn, University of Southampton  
Recent reduced abyssal overturning and ventilation in the Australian Antarctic Basin

14 December 2023 | 10:00 - 10:40 CET  
Online

Download Kathryn's presentation here →

ECRA OCEANICE

COFFEE is co-funded by the Antarctic Basin Interdisciplinary Hub, funded by the Natural Environment Research Council (NERC) and the Antarctic Science and Technology Programme (ASTP) of the UK Government.

### Climate Coffee with Shenjie Zhou (BAS) on Slowdown of Antarctic Bottom Water export driven by climatic wind and sea-ice changes

7 December 2023



Climate Coffee | Slowdown of Antarctic Bottom Water

# Climate Coffee

Shenjie Zhou, BAS  
Slowdown of Antarctic Bottom water export driven by climatic wind and sea-ice changes

7 December 2023 | 10:00 - 10:40 CET  
Online

Download Shenjie's presentation here →

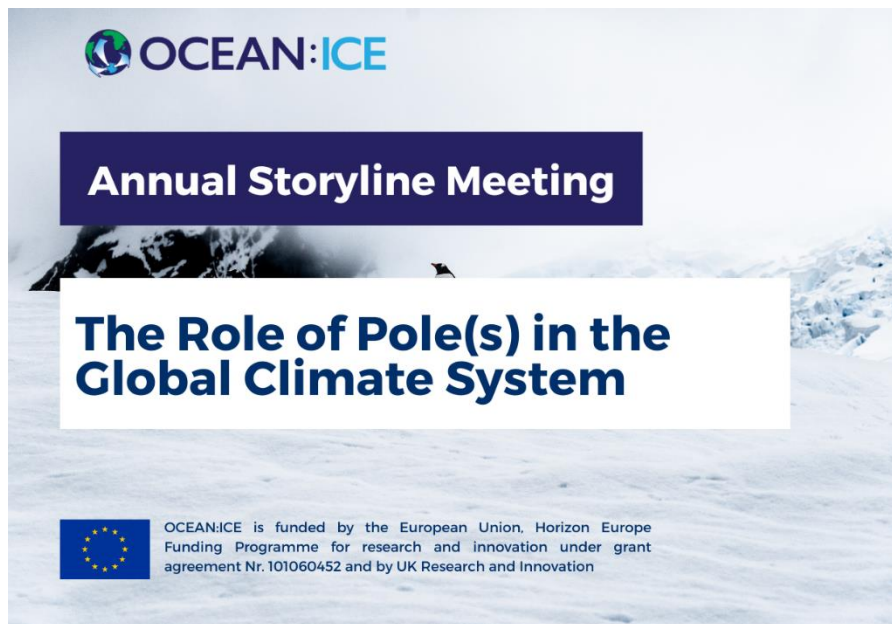
ECRA OCEANICE

COFFEE is co-funded by the Antarctic Basin Interdisciplinary Hub, funded by the Natural Environment Research Council (NERC) and the Antarctic Science and Technology Programme (ASTP) of the UK Government.

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## The Role of Pole(s) in the Global Climate System Storyline Meeting

On the 6th of November 2023, the OCEAN:ICE community gathered for the role of pole(s) in the global climate system storyline meeting led by [Robin Smith](#) from the [University of Reading](#). The meeting started with Jon Robson's EPOC presentation, then the discussion of actions from the previous role of pole(s) storyline meeting and the OCEAN:ICE work package relevant updates and input followed. The reports from all four OCEAN:ICE cross cutting themes will be collated in the MS24 'OCEAN:ICE WP8 annual storyline meeting 2' report and uploaded to the OCEAN:ICE Zenodo community [Ocean-Cryosphere Exchanges in Antarctica: Impacts on Climate and the Earth System](#).



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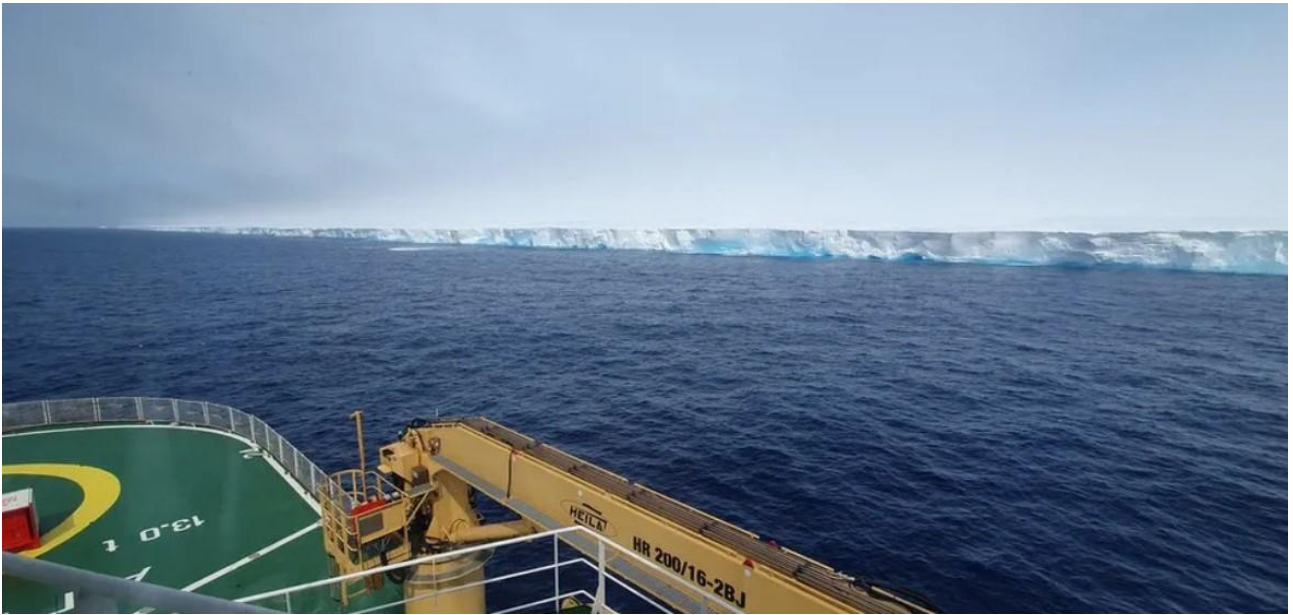
## The World's Largest Iceberg A32a Hits the News

As the RRS Sir David Attenborough encountered the world's biggest iceberg A23a, OCEAN:ICE UK Grant Coordinator and Principal Investigator, Andrew Meijers, was on board as the Principal Science Officer. Andrew explained the scale of the iceberg and its possible impacts to the media. If you want to catch up, listen to the recording, starting at 13:15, [here](#).

More on A32a at:

- [📎 A23a: World's biggest iceberg on the move after 30 years - BBC News](#)
- [📎 Sir David Attenborough polar ship has monster iceberg encounter - BBC News](#)
- [📎 A23a: Monster iceberg just shy of a trillion tonnes - BBC News](#)
- [📎 British research ship crosses paths with world's largest iceberg as it drifts out of Antarctica \(msn.com\)](#)

[📌 'Incredibly lucky': Antarctic scientists examine world's largest iceberg, three times the size of NYC | Antarctica | The Guardian](#)



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### Milestones and Deliverables

This month has also been marked with the delivery of fieldwork related project milestones. Find the latest milestone reports on our Zenodo community linked below!

- [Deployment of the AUV in the Amundsen Sea \(MS3\)](#)
  - [Instrument deployment through Fimbul Ice Shelf borehole \(MS4\)](#)
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## Upcoming Climate Coffees

Celine Rodrigues on Portugal in the Arctic: a plausible actor at the intersection of North Atlantic and Arctic oceans

18 January 2024 from 10:00 – 10:45am (CET). Register [here](#).



# Climate Coffee

**Celine Rodrigues**, Universidade Nova de Lisboa

**Portugal in the Arctic: a plausible actor at the intersection of North Atlantic and Arctic Oceans**

18 January 2024 | 10:00 - 10:40 CET  
Online



OCEAN:ICE is co-funded by the European Union, Horizon Europe Funding Programme for research and innovation under grant agreement Nr. 101060452 and by UK Research and Innovation



February is a special month for our Climate Coffee series! We have two talks lined up!

Emmanuele Russo on Increasing Intensity of Extreme Heatwaves: The Crucial Role of Metrics

15 February 2024, 10:00 – 10:40 (CET)



# Climate Coffee

**Emmanuele Russo**, ETH Zürich

**Increasing Intensity of Extreme Heatwaves: The Crucial Role of Metrics**

15 February 2024 | 10:00 - 10:40 CET  
Online



Danish Meteorological Institute



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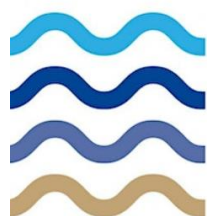




Bijan Fallah on Efforts on the downscaling of CMIP6 models

22 February 2024, 10:00 - 10:40 (CET)

Register [here](#).



# Climate Coffee



**Bijan Fallah, Potsdam Institute for Climate  
Impact Research (PIK)**

**Efforts on the downscaling of CMIP6 models**

22 February 2024 | 10:00 - 10:40 CET  
Online

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Happening in Winter

OCEAN:ICE will be at these upcoming events. Will you also be there? Let us know!

- 24 January 2024, OCEAN:ICE and Arctic PASSION Policy Briefing, [From changing Polar regions to policy responses – Strengthening EU and global climate preparedness](#), European Parliament and online
- 18-23 February 2024, [Ocean Sciences Meeting](#), New Orleans

*Do you know of any exciting events that OCEAN:ICE should be a part of? Shoot us a mail at [oceanice.eu@gmail.com](mailto:oceanice.eu@gmail.com).*

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[www.ocean-ice.eu](http://www.ocean-ice.eu)

<https://www.linkedin.com/company/euoceanice/>

[https://twitter.com/OCEANICE\\_EU](https://twitter.com/OCEANICE_EU)

<https://fediscience.org/@OceanIceEU>

<https://www.facebook.com/OCEANICEEU/>

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## Who is OCEAN:ICE?

OCEAN:ICE stands for Ocean-Cryosphere Exchanges in Antarctica: Impacts on Climate and the Earth System. OCEAN:ICE is a Horizon Europe project, funded by the European Commission and UKRI. OCEAN:ICE focus on understanding how the Antarctic ice sheet and the surrounding Southern Ocean influence our global climate and reduce the level of uncertainty around how much the Antarctic ice sheet will melt in the coming centuries. OCEAN:ICE considers the critical role of feedbacks between ocean circulation, ice sheet change and tipping points and the global climate. [Find out more](#)





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