



**POLARFORSKNINGS
SEKRETARIATET**
SWEDISH POLAR RESEARCH SECRETARIAT

Welcome to the GEOEO Open Science Session and Workshop

North Greenland Earth Ocean Ecosystems Observatory, GEOEO
– GEOEO North of Greenland 2024 expedition with the icebreaker Oden

9–10 October 2023

Stockholm University

9 October: Background and framework of GEOEO

10 October: Closed Scope of Work workshop, expedition participants only



Background to the GEOEO theme

The GEOEO theme was adopted by the Swedish Polar Research Secretariat (SPRS), and is supported at SPRS's programme level, more info at www.polar.se/en/research-support/polar-research-process/.

GEOEO addresses scientific questions focused on providing new knowledge on the marine cryosphere's dynamic history and response to future climate change, including implications for marine and terrestrial ecosystems in North Greenland and the adjacent Arctic Ocean and the North Greenland Ice Sheet's contribution to global sea-level rise. GEOEO builds on the legacy of international research expeditions, projects, and networks over the past decade, specifically the *Petermann 2015* and *Ryder 2019* expeditions with I/B Oden to North Greenland. GEOEO includes ship-going components as well as land-based projects and will also deliver a "Research to policy" multidisciplinary synthesis report. *The North of Greenland 2024* expedition will take place August-September 2024.

Within GEOEO, the focus is on seven broader topics:

- I.** Unravelling the Late Glacial to Holocene history and dynamics of the North Greenland Ice Sheet
- II.** Providing new insight into the variability of the marine cryosphere of North Greenland and the adjacent Arctic Ocean
- III.** Investigating the interaction between ecosystem community composition, anthropogenic dynamics and climate fluctuations
- IV.** Quantifying ecosystem production and nutrient state in changing marine ecosystems of North Greenland
- V.** Mapping of the remote ocean frontiers
- VI.** Mapping the presence of gas hydrates in marine sediments and gas in water column and atmosphere
- VII.** Numerical modelling of the ice-ocean-atmosphere-geodynamic system.



Monday 9 October - tentative programme

Open science session, in cooperation with the Bolin Centre for Climate Research

- 12.00 Registration for GEOEO workshop participants and light lunch
- 13.00 Welcome from the Bolin Centre and the Swedish Polar Research Secretariat
- 13.15 Background and framework of GEOEO
Martin Jakobsson and Nina Kirchner

Science Speed Talks

- 13.30 *Martin Jakobsson*
- 13.40 *Nina Kirchner*
- 13.50 *Wei Li Hong*
- 14.00 *Matt O'Regan*
- 14.10 *Johan Nilsson*
- 14.20 *Love Dalén*
- 14.30 **Coffee break**
- 15.00 *Hans Linderholm*
- 15.10 *Christian Stranne*
- 15.20 *Adam Ulfso*
- 15.30 *Volker Brüchert*
- 15.40 **Short break**
- 15.50 *Larry Mayer*
- 16.00 *Jeffrey Welker*
- 16.10 *Lara Perez*
- 16.20 *ACAS - John Prytherch*
- 16.30–17.30 Open discussion, Q&As
- 18:00 **Dinner at the Fakultetsklubben, at the University area**



Tuesday 10 October - tentative programme

Closed Scope of Work workshop, expedition participants only

09.00	Expedition route and information prior to the expedition <i>Swedish Polar Research Secretariat</i>
09.20	Information from the Master of IB Oden
09.30	Logistics and support
10.00	Scope of Work and plan for breakout sessions
10.15	Coffee break
10.30	Breakout rooms
11.15	Report from breakout rooms
11.45	Next steps and round off
12.30	Lunch

