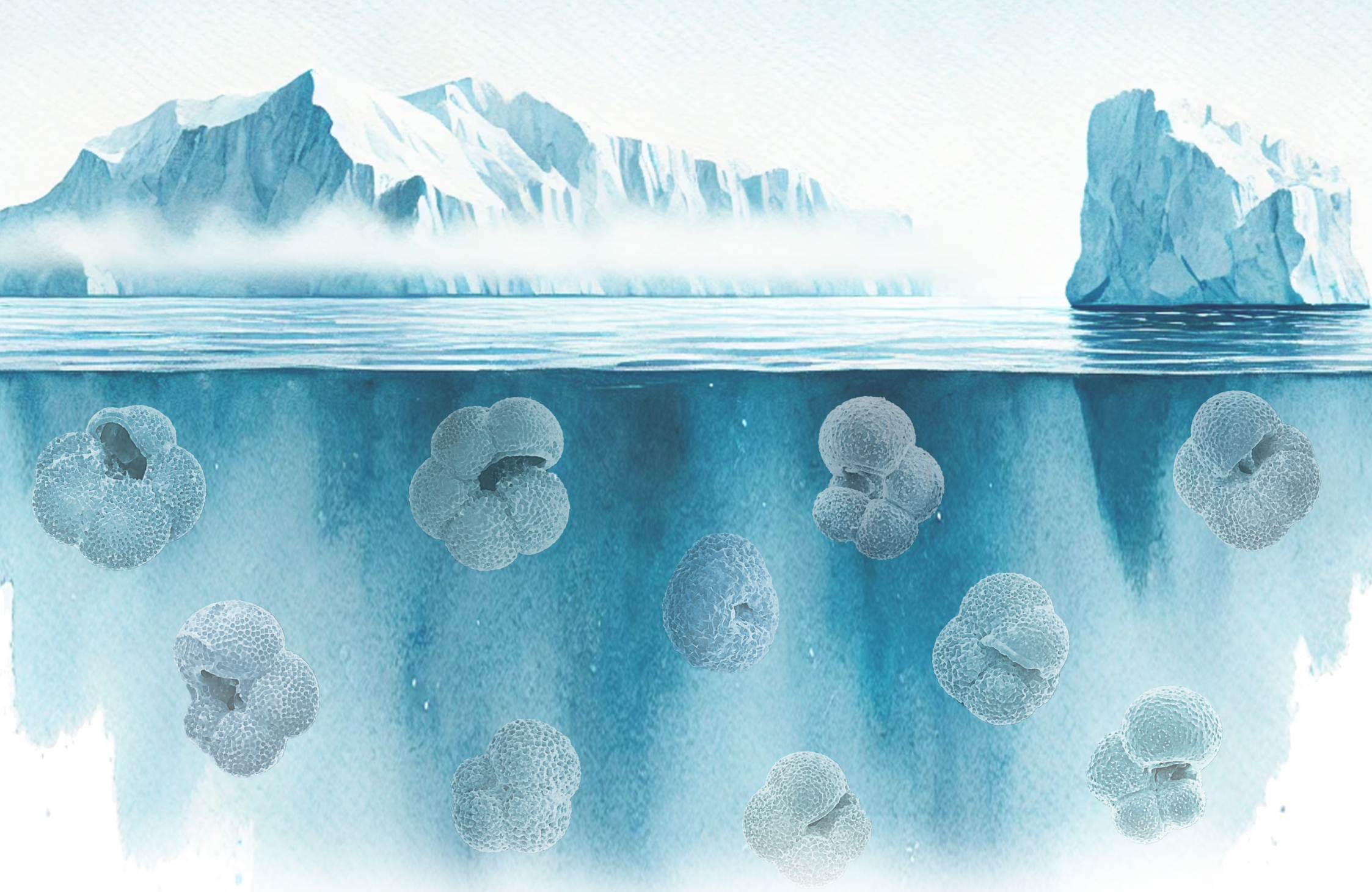




Foram-idable adaptations: 10 million years of *Neogloboquadrina* evolution in the high latitude North Atlantic and Arctic

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Time & place: April 24, 2025 at 15h00. William-Olsson lecture hall, Geohuset

This seminar explores 10 million years of evolution in the planktonic foraminifera genus *Neogloboquadrina*, focusing on how this genus adapted to the changing climate and cold conditions of the high-latitude North Atlantic and Arctic. The research examines the biostratigraphy, ecology, and isotopic signatures of *Neogloboquadrina* species, particularly the polar specialist *N. pachyderma* and its relative, *N. atlantica*. During the Late Miocene and Pliocene, *N. atlantica* dominated the high-latitude North Atlantic. However, with the onset of cooling temperatures, *N. atlantica* went extinct in the late Pliocene, allowing *N. pachyderma* to emerge as the dominant species in the North Atlantic and Arctic throughout the Quaternary. The central question driving this research is: How did *N. pachyderma* evolve into a polar specialist? To address this, analyses of relative abundance, isotopic signatures, and shell morphology are used to investigate how *N. pachyderma* adapted, potentially developing unique reproductive strategies to thrive in Arctic conditions. Key findings include new insights into its shell coiling, reproductive cycles, and ecological adaptations.

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