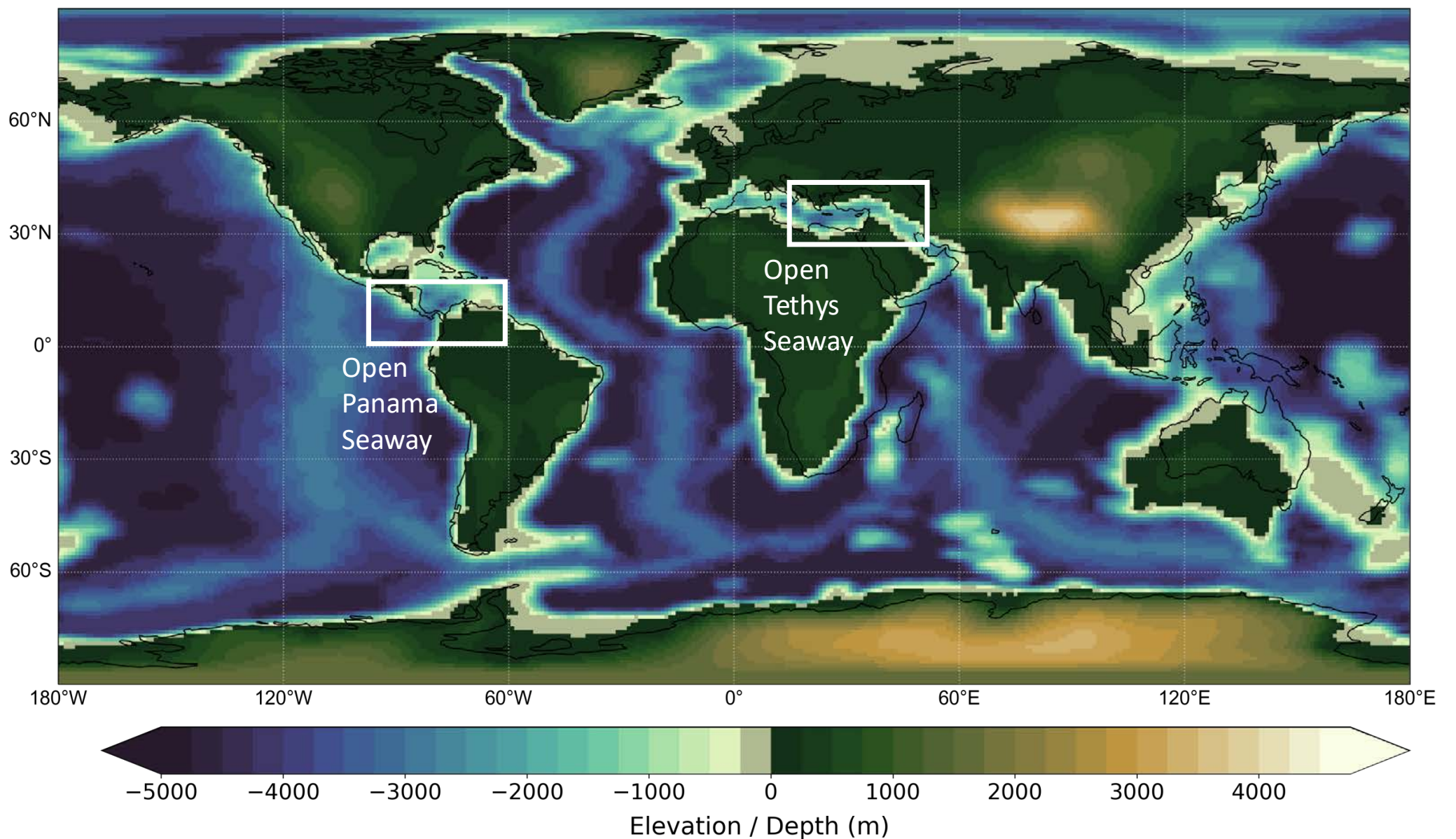


## Miocene Paleogeography



# Ocean gyre circulation and gateway transports during early and middle Miocene

Trusha Naik, PhD student at the Department of Geological Sciences, Stockholm University

Time & place: May 8, 2025 at 15h00. William-Olsson lecture hall, Geohuset

Oceanic gyres are a key component of the global ocean circulation system. Driven by winds at the ocean surface, they play an important role in redistributing nutrients, salinity, and other tracers within and between ocean basins. Changes in climate and paleogeography can alter wind patterns and oceanic gateway configurations, which in turn affect the strength and structure of gyres and the direction of interbasin transports.

In this seminar, I will discuss how paleogeographic changes during the early and middle Miocene (~12–20 million years ago) influenced surface circulation, focusing on changes in gyre strength and gateway transport. I will present results from a set of coupled climate model simulations, which help us understand the relationship between changing boundary conditions and ocean circulation during this warmer-than-modern interval.

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Contact information: [wei-li.hong@geo.su.se](mailto:wei-li.hong@geo.su.se), [paola.manzotti@geo.su.se](mailto:paola.manzotti@geo.su.se) & [christian.stranne@geo.su.se](mailto:christian.stranne@geo.su.se)



Stockholm University