

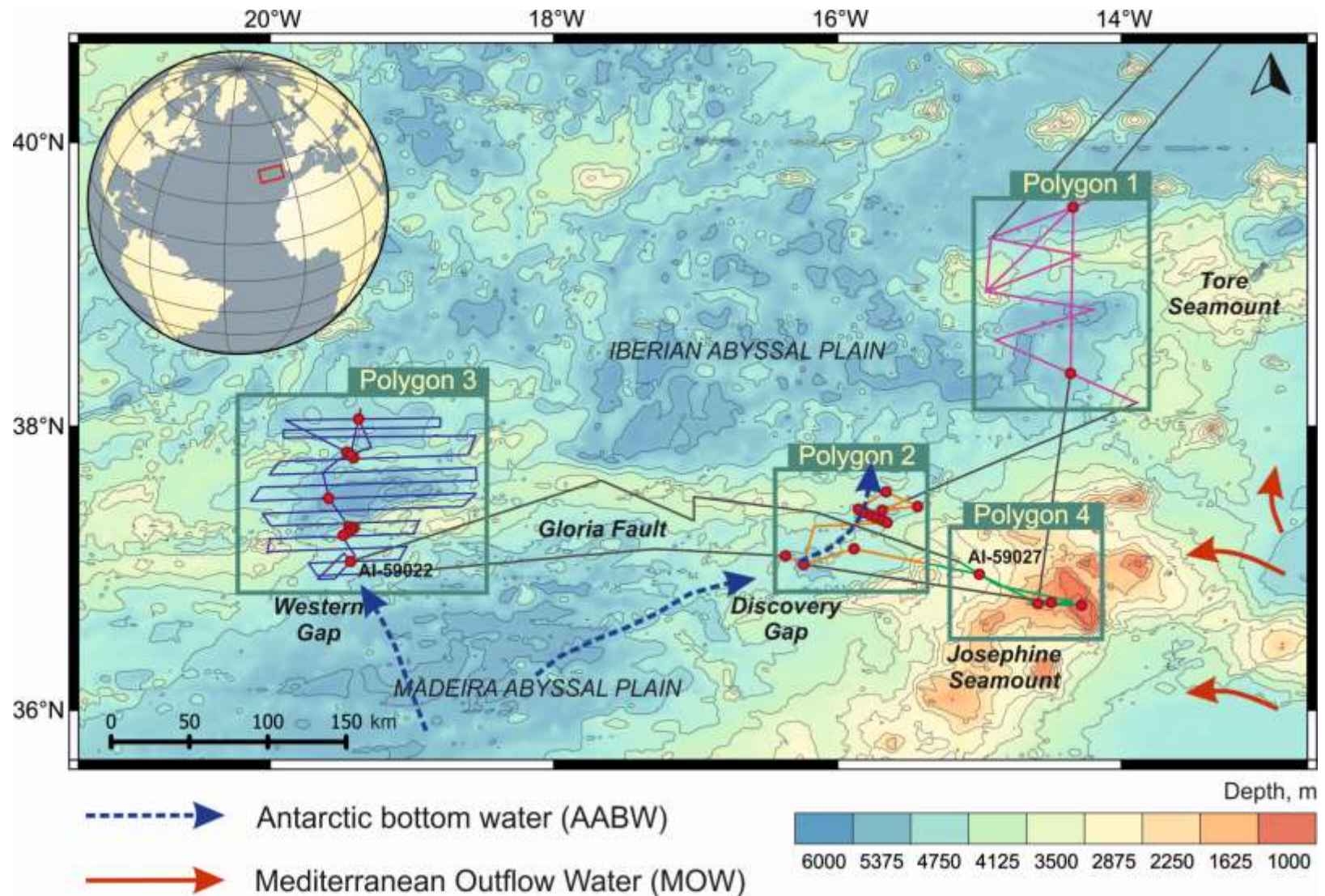


Recognizing the effect of modern and paleo bottom currents across deep-marine basins: insights from sedimentological and geophysical data across the Western Gap and Josephine Seamount (NE Atlantic)

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Study area



Currents by Hernández-Molina et al. (2011)

Methods

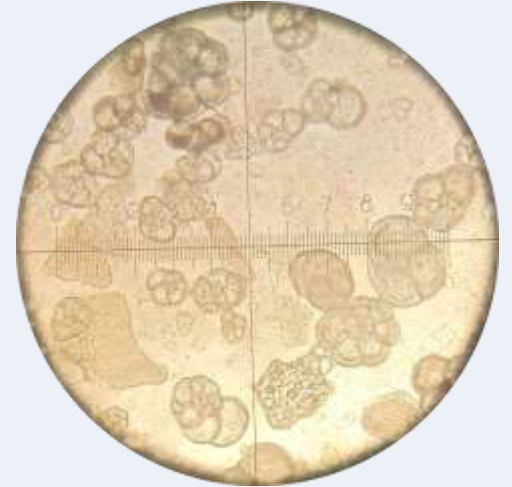
**Lithological
description**



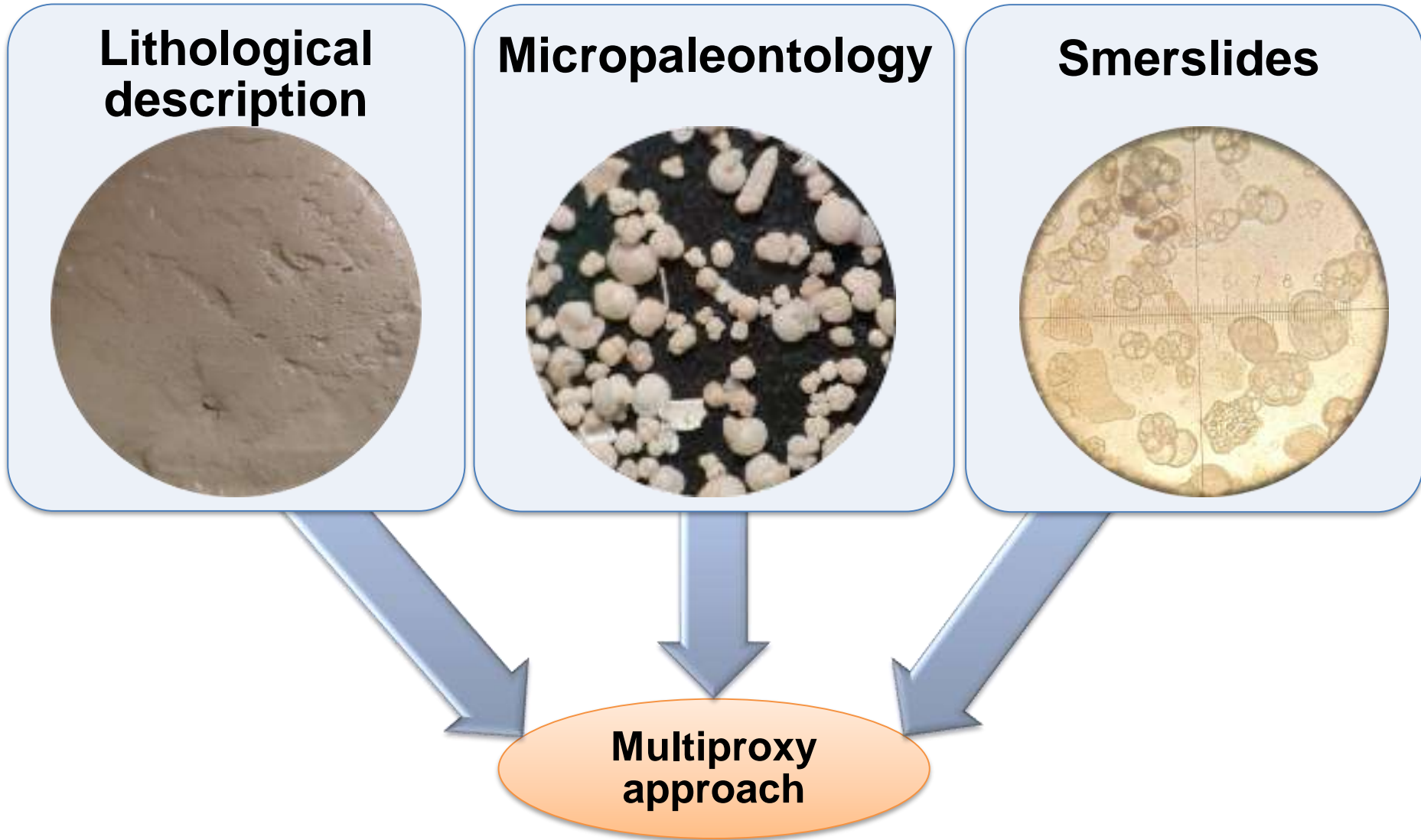
Micropaleontology



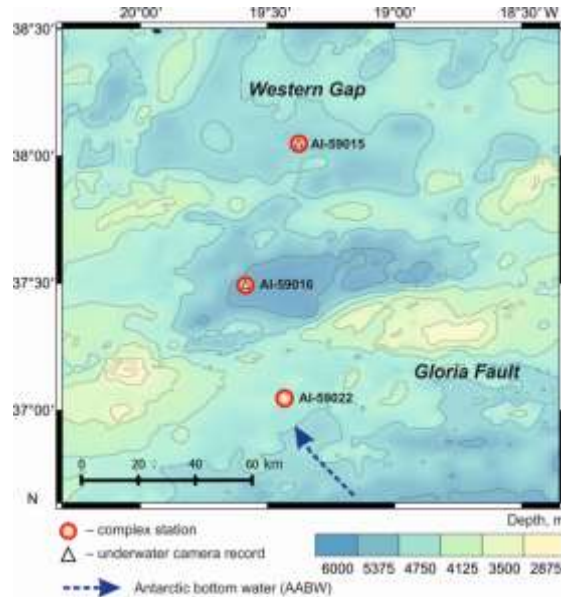
Smerslides



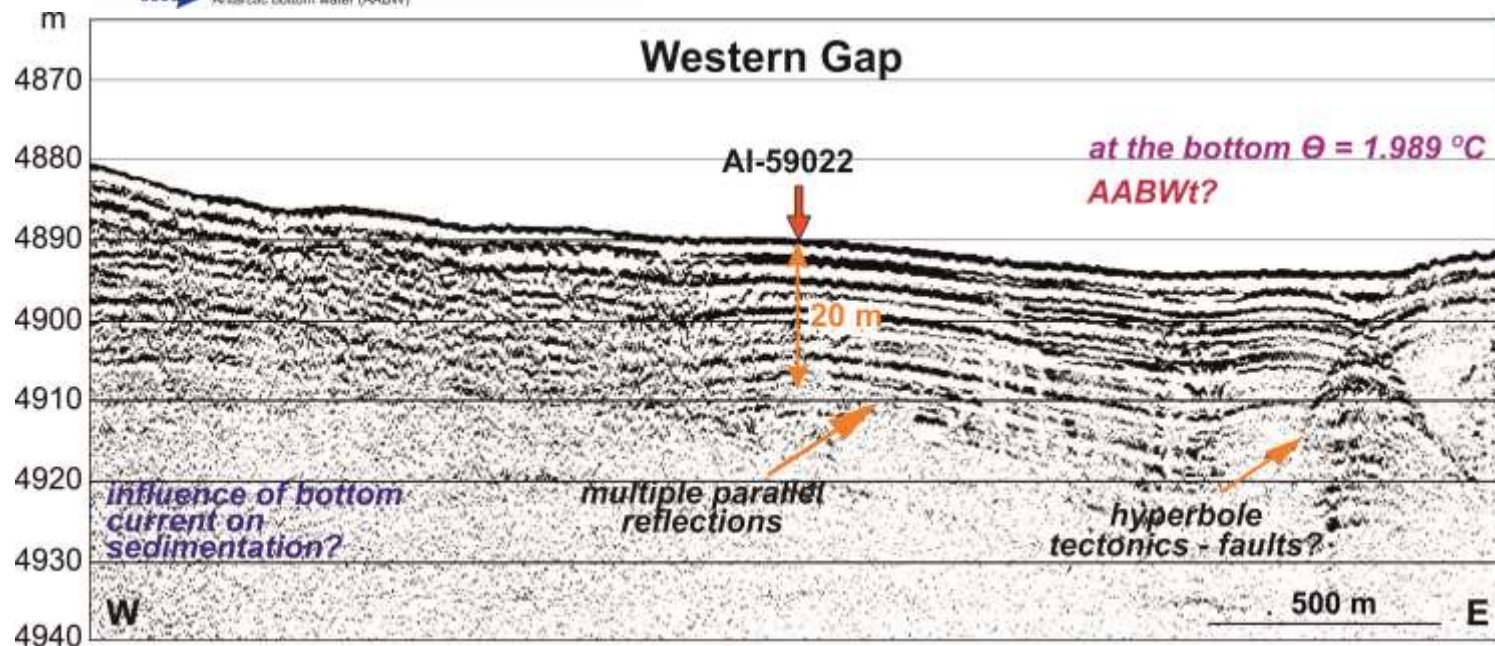
**Multiproxy
approach**



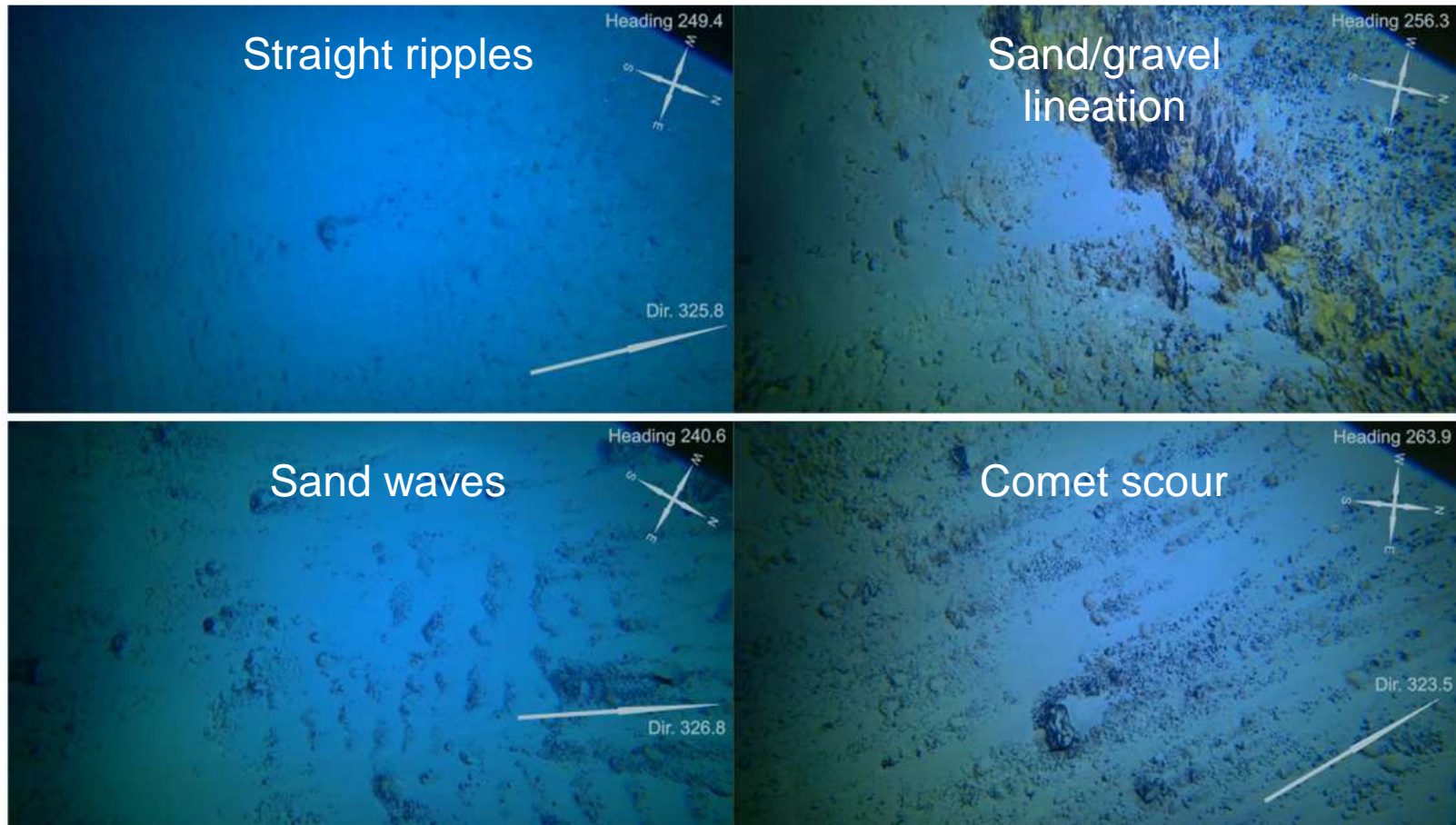
Stratified sediments south of the Western Gap



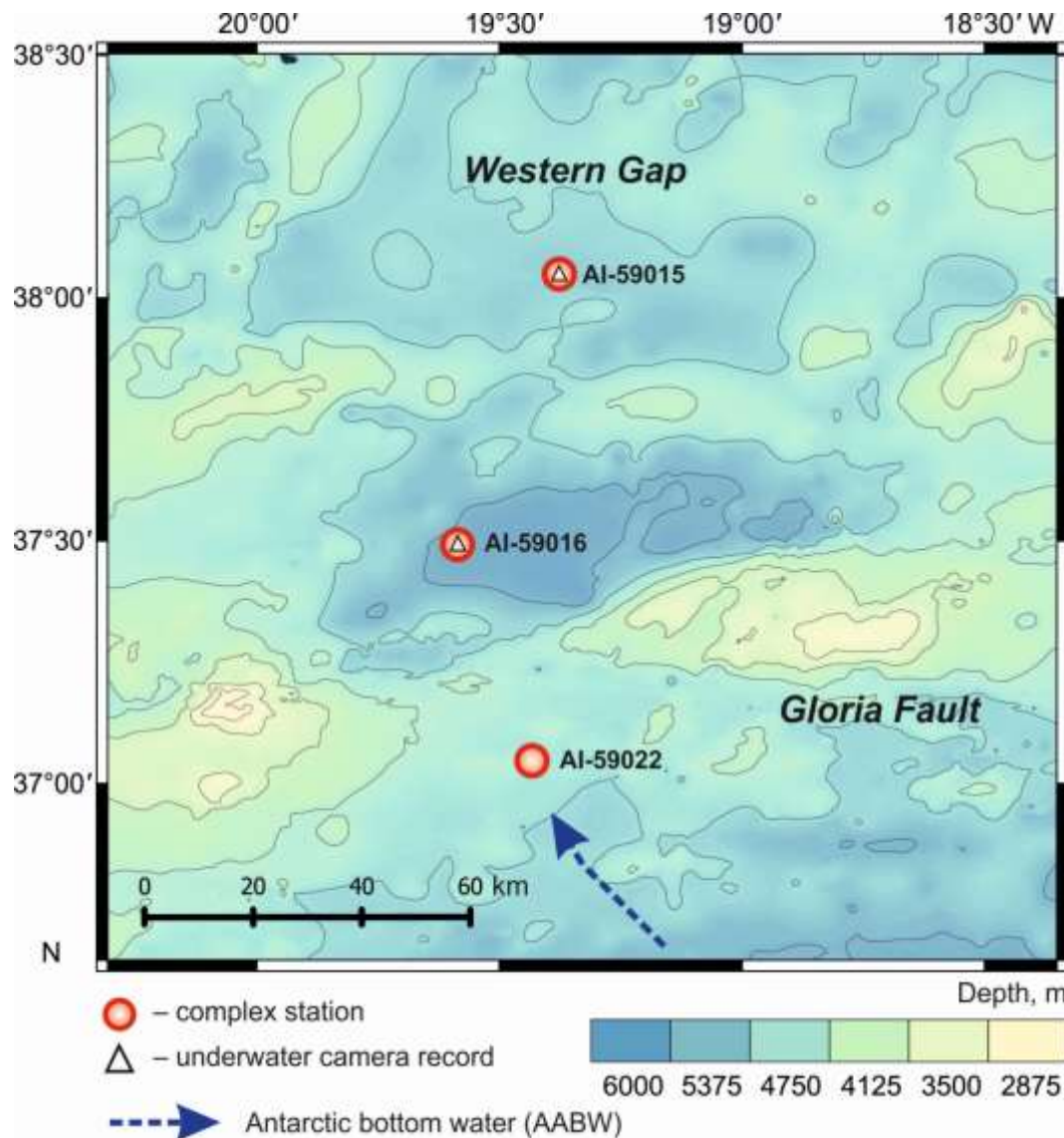
No evidence of active hydrodynamics south of the Western Gap



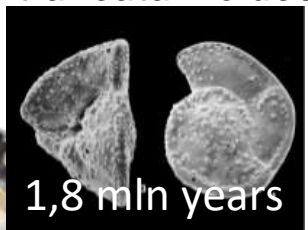
Bottom morphology at the entrance sill of the Western Gap (indicating the presence of a strong current (20-30 cm/s) in the north direction)



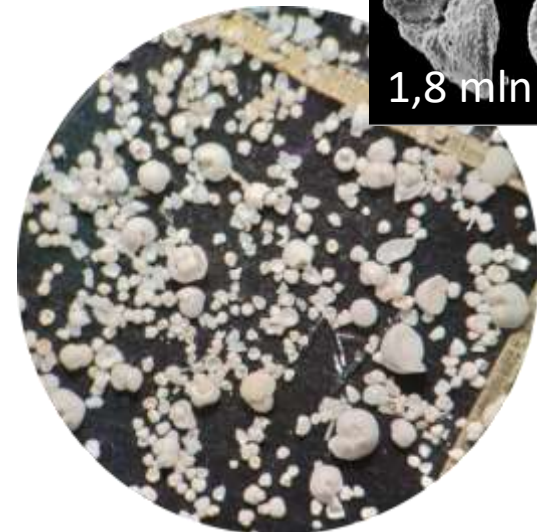
Western Gap



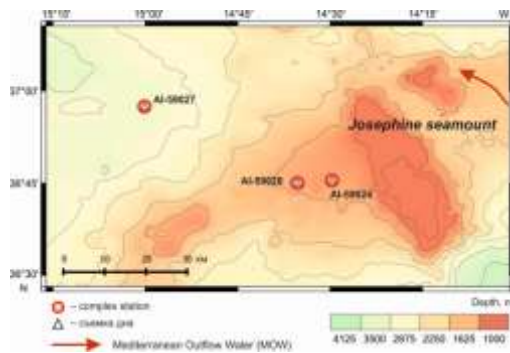
Globorotalia truncutulinoides



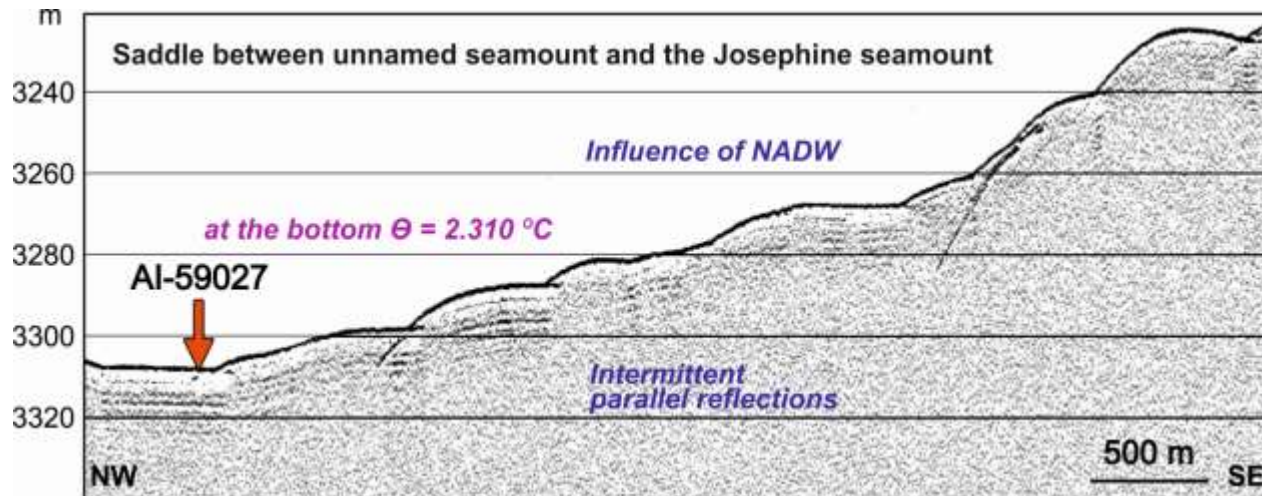
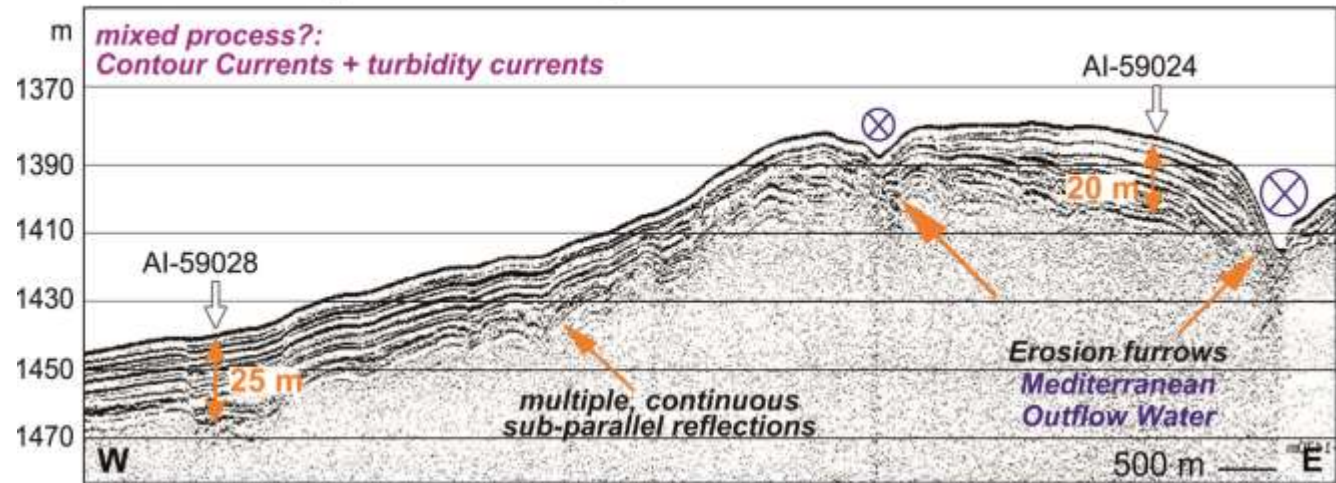
1,8 mln years



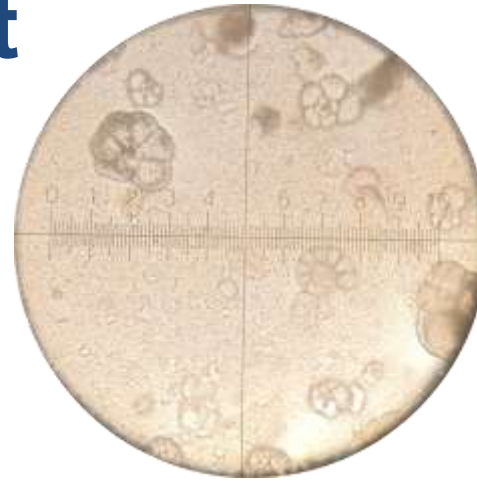
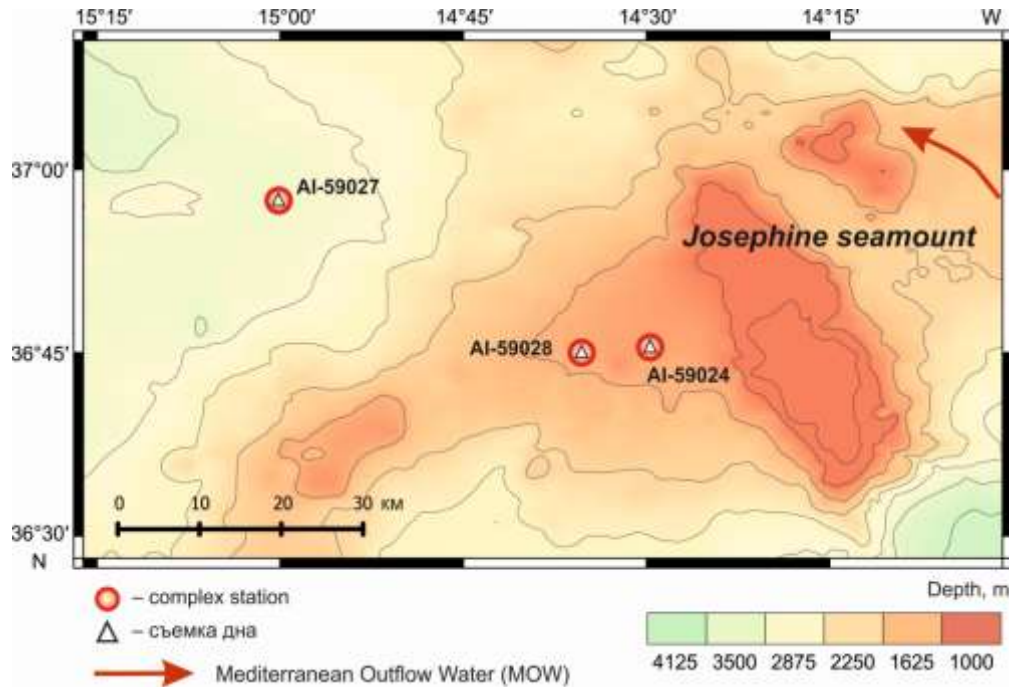
Evidence of a Contourite Drift of Mixed Genesis on the western slope of Josephine seamount



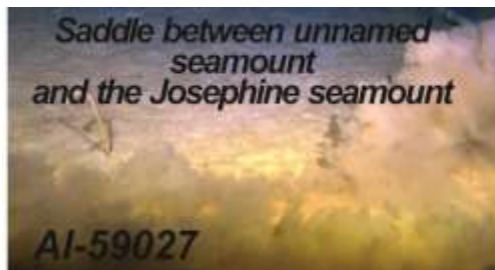
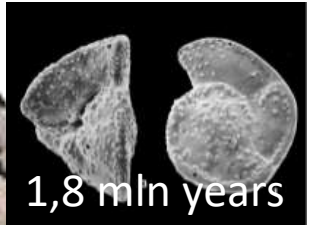
Western slope of the Josephine seamount



Josephine seamount



Globorotalia truncutulinoides



Comparison

AI59022

4876 m

AI59027

3282 m

Depth

AABWt

Water mass

NADW, MOW

Multiple parallel
reflections

Acoustic structure
of sediments

Contourite drift and
erosion furrows

Poor and very poor

Preservation of
foraminiferal calcite

Well and very well

<1,8 mln years

Age of sediments

<1,8 mln years

Aleurite-pelitic mud

Sediment
structure

Sandy silt

Thank you for your attention!

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The participants and crew of cruise 59 of the P/V Akademik Ioffe (2021).