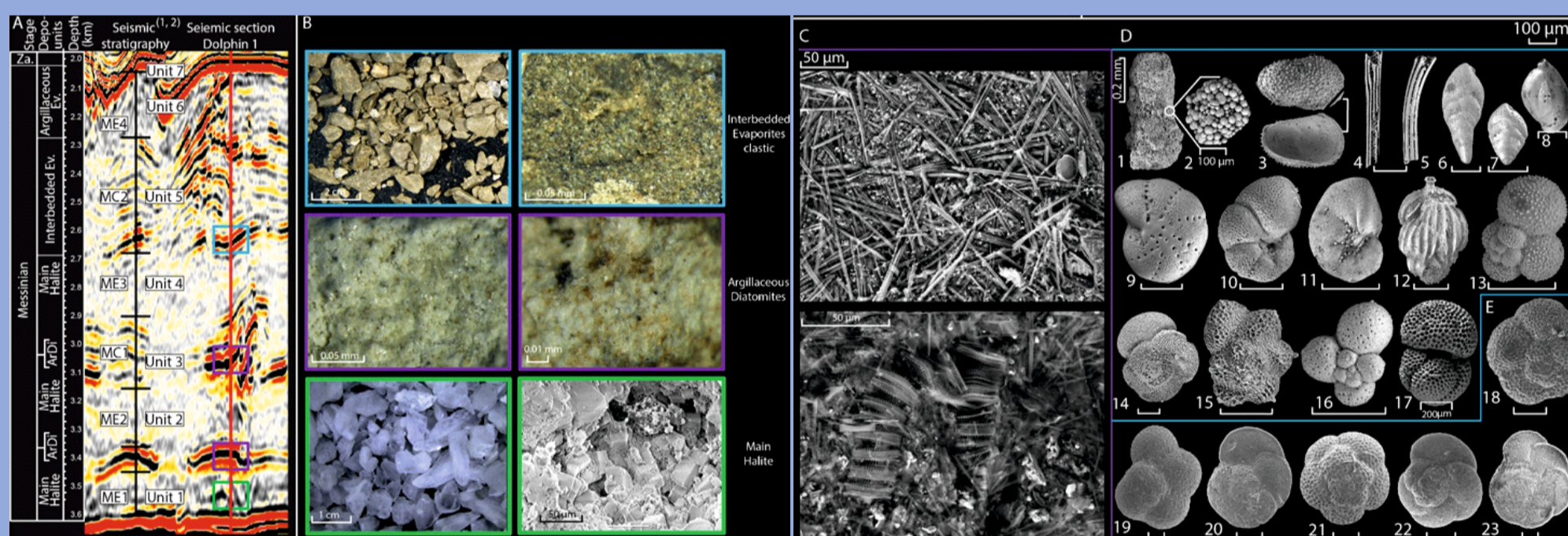


From the buried Messinian stratigraphy to present-day shark nurseries: chronology, sedimentology and geobiology of the Messinian Salinity Crisis record in the deep Levant Basin of the E Mediterranean



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Abstract

The Messinian Salinity Crisis is an extreme environmental event driven by changes in climate and tectonics. Based on the first complete sedimentary record of the deep-basin MSC salt, I demonstrate that salt was deposited synchronously with gypsum in the marginal basins. This calls for a reevaluation of the MSC, while altering our understanding of salt giants.

Moving a few kilometers above to the current Levant deep basin seafloor, I will then characterize the dynamics of seafloor gas seeps and demonstrate how availability of sub-seafloor gas in leaking reservoirs migrates along overlying sediments, merges with Messinian salt, and fuels the development of a unique deep marine ecology.