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WEEK

ABSTRACT BOOK

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Late Miocene mesopelagic fish size distribution in the Mediterranean

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Was the mesopelagic fish size affected by the environmental changes toward the onset of the Messinian salinity crisis (MSC; 5.97–5.33 Ma) in the Mediterranean? During the late Miocene, the Mediterranean went through significant oceanographic changes, due to the gradual restriction of its connection with the Atlantic Ocean that led to the MSC, which ended with a massive flood of the basin and the re-establishment of normal marine conditions at the beginning of the Pliocene. The marine gateway restriction commenced with the closure of the Betic corridors at the Tortonian–Messinian boundary, followed by the Rifian corridors gradual closure, certainly by 6.0 Ma. The Messinian stage in the Mediterranean therefore is characterized by progressive salinity increase and water-column stratification. In order to test the hypothesis that these changes affected Mediterranean mesopelagic fish biomass, we compare the fish otolith length distributions of the species *Ceratoscopelus maderensis*, *Diaphus* spp., *Hygophum* spp. and *Myctophum* spp. between Tortonian, pre-MSC Messinian, post-MSC Messinian, and Zanclean assemblages across the Mediterranean. Acknowledgements.

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