

VARIABILITY IN THE IONIAN SEA (CORE KC01B) DURING MIS 9-13 EVIDENCED BY PLANKTONIC FORAMINIFERAL ASSEMBLAGES

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RIASSUNTO: Lirer F. *et al*, *Variazioni climatiche ad alta risoluzione nel Mar Ionio (Carota Kc01b) durante i MIS 9-13 riconosciute attraverso le oscillazioni dei foraminiferi planctonici* (IT ISSN 0394-3356, 2011)

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Parole chiave: foraminiferi planktonici, Mediterraneo orientale, paleoclima

The marine isotopic stages (MIS) 13–9 represent an extraordinarily time interval (between ~300 and ~500ka) for investigating the baseline natural climate changes. This period has been considered by the scientific community an unusually warm interval during the last 1000 ka. In particular MIS11 represents the first interglacial after the mid-Brunhes carbon-cycle event with atmospheric greenhouse gases concentrations and temperatures similar to the today interglacial phase. These knowledges are crucial in order to understand the present climatic variability and to predict its possible future evolution.

In this framework, we present the new high-resolution planktonic foraminiferal data throughout MIS 13-9 on the sediment core KC01B collected in the Ionian basin (eastern Mediterranean Sea) at 3643 m water depth. This deep marine record represents a key site for the construction of a sapropel-based astronomical timescale for the last 1.1 My (LOURENS, 2004) in the Mediterranean sea and contains an high number of tephra layers. This study is based on quantitative analysis of planktonic

foraminifera with a time resolution of about 380 kyr.

The constructed planktonic foraminiferal paleoclimatic curve of the investigated time interval documents different climate patterns during the interglacials MIS 13, 11 and 9 in terms of intensity and internal variability. In addition, the distributional trend of *Globigerinoides ruber* group, *Turborotalia quinqueloba* and *Globigerina bulloides* suggests important changes in productivity and stratifications induced by a strong linkage between climate variability and hydrographic conditions.

REFERENCES

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