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Biogenic Bloom



DISENTANGLING REGIONAL AND GLOBAL SIGNATURES FROM BENTHIC FORAMINIFERA RECORDS **DURING THE LATE MIOCENE-EARLY PLIOCENE BIOGENIC BLOOM** (IODP SITE U1506 AND ODP SITE 1085)

IODP SITE U1506 BIOSTRATIGRAPHIC CLASSIFICATION AGE MODEL AND SEDIMENTATION RATES The study interval extends from Zone NN10 to Zone NN13 (Martini, 1971), from Subzone CN8b to Subzone CN10 (Okada and Bukry, 1980), and from Zone CNM15 to Zone CNPL1 (Backman et al., 2012)



Benthic foraminifera assemblages are strongly dominated by calcareous and infaunal taxa such as *Bulimina*, Globocassidulina, and Uvigerina. G. subglobosa

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PALEOENVIRONMENTAL SIGNAL

Phytodetritus Diversity (counts cm⁻² kyr⁻¹) Fisher- α (%) exploiting taxa (%)

Benthic foraminiferal assemblages suggest changes in deep water oxygen concentration and seafloor nutrient supply during generally high export productivity conditions.

From 7.4 Ma to 6.7 Ma, strengthening of the EAC and shallow-intermediate waters, driven by the northward migration of the Westerlies, led to greater influence at Site U1506 and episodic nutrient supply related to seasonal phytoplankton blooms. High relative abundance of

Globocassidulina crassa and Globocassidulina subglobosa characterise this interval. From 6.7 Ma to 4.5 Ma, the productivity regime shifted to a more stable interval characterized by eutrophic and dysoxic conditions, due to the subsequent southward movement of the Westerlies, and the subsequent weakening of these currents and a reduced influence on the site.

REFERENCES

G. crassa

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