



Size-related stable isotope changes in planktic foraminifera across the “Latest Danian Event” (ODP Site 1262, Walvis Ridge)

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The Latest Danian Event (LDE, ~62.15 Ma) represents a transient carbon cycle perturbation on a global scale similar to the Paleocene-Eocene Thermal Maximum, but of a much lower magnitude. This event took place during a time interval that is characterized by major changes in the calcareous plankton communities like the appearance and diversification of the fasciculithid nannolith group and the establishment of dinoflagellate photosymbiosis within the *Praemurica*/*Morozovella* planktic foraminifera.

Size-related isotope changes ($\delta^{13}\text{C}$, $\delta^{18}\text{O}$) of planktic foraminifera might indicate changes in the depth habitat of foraminifera with ontogeny. An increase in $\delta^{13}\text{C}$ with size may point to the existence of (dinoflagellate) photosymbionts, and are often used to identify photosymbiosis in extinct foraminifera. Size fraction data on middle Paleocene taxa are generally rare and only poorly constrained concerning their stratigraphic age. Here we present detailed isotopic data from seven samples across the LDE of seven taxa including the asymbiotic *Parasubbotina variospira* and various symbiont-bearing taxa of the *Praemurica*, *Morozovella* and *Igorina* lineages that provide new insights into the life style of these taxa. Moreover, we intend to test if photosymbiotic activity changes occur during the LDE.