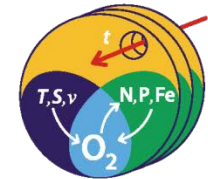


# Reconstruction oxygen conditions of the Peruvian OMZ for the last 22 thousand years using benthic foraminifera



**SFB 754**

Project B7 (SFB754, Phase II)

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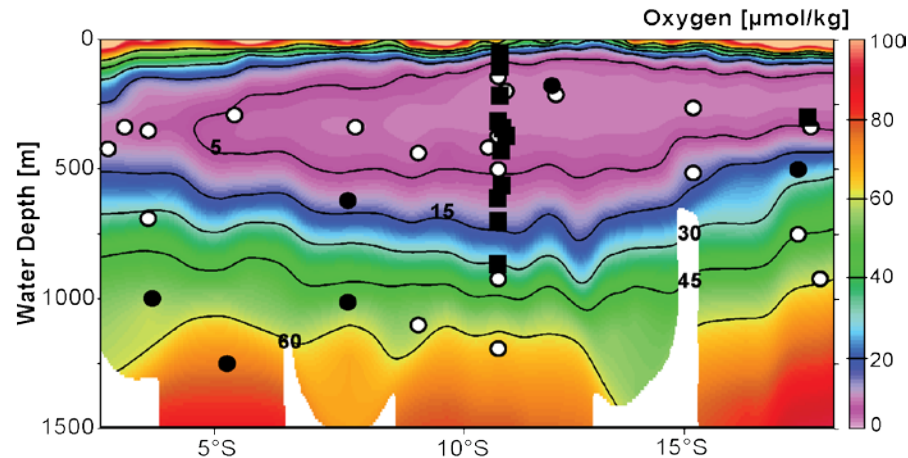


Fig. 1: Latitude vs depth section of dissolved oxygen conditions along the Peruvian shelf and slope. Squares: surface samples for living benthic foraminiferal faunas, black dots: sediment cores designated for foraminiferal studies, white dots: other SFB754 sediment cores used for sedimentological studies.

- Living benthic foraminiferal assemblages are structured with the prevailing bottom-water oxygen concentrations (Mallon et al., 2012).
- Downcore distribution of benthic foraminiferal assemblages showed fluctuations in the abundance of indicator species indicating variations in past bottom-water oxygenation.
- The results will particularly reveal changes in the depth of the OMZ lower boundary during the last Termination.

- The Peruvian Oxygen Minimum Zone is one of the most pronounced OMZs in today's oceans and thus a key area to understand changing oxygen conditions in relation with climate change.
- The aim of this project is to reconstruct the changing bottom-water oxygen conditions in the Peruvian OMZ since the Last Glacial Maximum by using benthic foraminiferal assemblages.

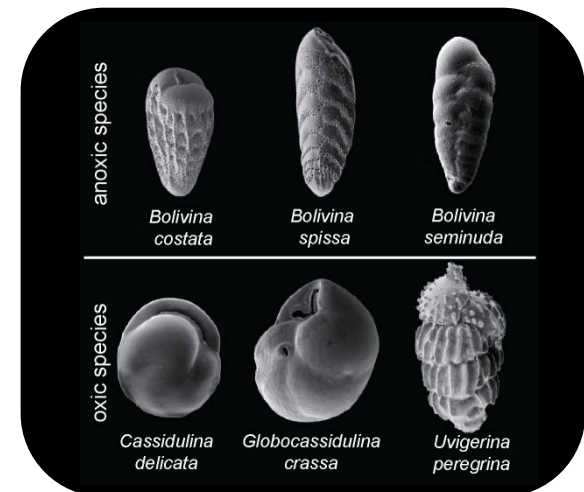


Fig. 2: Frequent indicator species observed in the sediment cores studied. Images by courtesy of Jürgen Mallon, 2012.