

HOLOCENE CHANGES IN THE OUTER SHELF - UPPER SLOPE OFF SOUTH-EASTERN BRAZIL

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Due to its morphology, the continental margin off south-eastern Brazil had been subjected to a huge horizontal coastline change since the Last Glacial Maximum (LGM). This process was followed by a dramatic rearrangement of the water mass dynamics over the shelf as well as to modifications in the sedimentary pattern. Compositional, radiometric (AMS ^{14}C) and isotopic ($\delta^{13}\text{C}$, $\delta^{15}\text{N}$, $\delta^{18}\text{O}$) analysis were performed on sediment and planktonic foraminifer samples collected in four box-cores from the outer shelf and upper slope off the southern Rio de Janeiro state. The results show that at least since of the Younger Dryas Event, the terrigenous-pelagic input as well as the water mass dynamics had been changed in different ways for the shelf and the slope, causing modifications in the depositional patterns and sedimentation rates for each area. In the upper slope, the rising SSTs for the last 12,000 years were followed by an important increase in calcium carbonate and organic matter contents. Results also allow to interpret that along the Holocene the penetration of the warm waters of Brazil Currents towards the coast lead to a decrease in the marine productivity on the outer shelf. At the same time, the advance of the cold deepest waters of the South Atlantic Central Water and Antarctic Intermediate Water acted in the opposite way.