

## High resolution ocean temperatures reconstructions over the last glacial-interglacial in the Kerguelen region, Southern Ocean.

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The Southern Ocean (SO) is a place of primordial importance to the understanding of global ocean circulation as it connects the Atlantic, the Pacific and the Indian oceans and thus actively participates in global climate changes. Climate processes and variations in the Indian sector of the SO are not as well understood as processes in the Atlantic sector. This why this project documents climate variations and migrations of the Antarctic Circumpolar Current (ACC) hydrological fronts in the Kerguelen area over the last glacial-interglacial cycle. In this study sea surface temperatures (SST) are reconstructed in two sediment cores, the MD11-3353 (PFZ) and MD12-3396CQ (SAZ), with radiolarian and diatoms microfossil assemblages. By comparing the results given by these two proxies different signals were identified for surface and subsurface waters suggesting a decoupling of these two water masses in the SAZ East of the Kerguelen Plateau. But in the PFZ, both proxies showed similar results. The comparison between these results leads us to think of an influence of lower latitudes warm water in the SAZ whereas this influence is absent in the PFZ in this region.

Keywords: Southern Ocean, Radiolarian, Diatoms, Micropaleontology, Kerguelen