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# Preliminary biostratigraphy of IODP Expedition 383 sites

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The Antarctic Circumpolar Current (ACC) is a major driver of global climate. It connects all three ocean basins, integrating global climate variability, and its vertical water mass structure plays a key role in oceanic carbon storage. The Atlantic and Indian sectors of the ACC are well studied, but the Pacific sector lacks deep-sea drilling records. Therefore, past water mass transport through the Drake Passage and its effect on Atlantic Meridional Overturning Circulation are not well understood. To fill this gap, IODP Expedition 383 recovered sediments from three sites in the central South Pacific and three sites from the southern Chilean Margin.

Here we present the preliminary biostratigraphy developed during the expedition. The sediments contained abundant nannofossils, foraminifera, radiolarians, diatoms and silicoflagellates which produced age models that were in excellent agreement with the shipboard magnetostratigraphy. Two sites contain high-resolution Pleistocene records, one site goes back to the Pliocene, and two others reach back to the late Miocene. Post-cruise research will further refine these age models through high-resolution bio-, magneto- and oxygen isotope stratigraphies that are currently being generated.

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