

## Paleoceanography in the western part of the Strait of Magellan since the last deglaciation

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The Patagonia Ice Sheet widely covered the southern part of the Andes Mountain Range, South America, during the last glacial period and has been diminished to the modern size. However, the process of the retreat of the glacier is not fully understood. The marine sediments deposited in the fjord hopefully record evidence of the retreat of the Patagonia Ice Sheet and water exchanges between the strait and the Pacific Ocean. According to Kilian et al. (2007), after the most recent glacial period, the western gate of the Strait of Magellan opened between 14.5-13.5 cal. Kyr BP. Thus the glacier was retreated by 13.5 cal. Kyr BP, and inflow from the Pacific began to affect the environment in the fjord. We are studying the retreat of Patagonia Ice Sheet and related paleoceanographic changes since the last deglaciation by means of analysis of radiolarian assemblages and estimation of biogenic component flux by <sup>230</sup>Th normalization. We used PC3 core (water depth, 560 m) which was collected from the western Strait of Magellan by the MR03-K04 cruise. The core sediments consist of calcareous sandy mud containing abundant calcareous fossils. The age model of this core was constructed on the AMS <sup>14</sup>C dating of planktonic foraminifer shells. The calibration indicates ca. 13.0 cal. Kyr BP at the core bottom. Radiolarians were rare during the last deglaciation and increased during the Holocene. For the reason of rare radiolarians during the deglaciation, there are two possibilities. One is that the waters were too cold due to the glacier for radiolarians to live in. Another is that there were not enough inflow of the Pacific water to the Strait of Magellan.