

Preliminary results on the experimental survey of submarine sediments under sea ice in the Lutzow-Holm bay region.

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Configuration of the Antarctic Ice Sheet during the Last Glacial Maximum (LGM) and its contribution to the post LGM sea-level rising have been reported with varying results. All glacio-hydro-isostatic models are based on LGM CLIMAP reconstructions that places the ice sheet at the continental shelf edge around Antarctica. However, details concerning the expansion, retreat, and behavior of the East Antarctic Ice Sheet (EAIS) are very sparse.

Testing of the LGM Antarctic ice volumes requires information about the elevation and extent of the ice sheet, and the timing of advance and retreat. The maximum extent of the ice sheet is recorded by submarine sediments on the continental shelf. Around the Lutzow-Holm bay region of East Antarctica, which is located in Japanese main base, the ice history from land-based studies such as relative sea-level changes and distribution of raised beach have been summarized. In relation to the previous land-based study, we present the preliminary results on the experimental marine-geological survey under sea ice using new exploration system.