Late Quaternary sea ice history in the northern Japan Sea as revealed by ice-rafted debris

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Sea ice history in the northern Japan Sea during late Quaternary was discussed. Spatial and temporal distribution of dropstones and ice-rafted debris suggested that sea ice occurred throughout the cores except of Holocene and Eemian sections, and the southern margin of sea ice was located at the offshore of southern Hokkaido during the last glacial maximum. Finer fluctuation in IRD occurrence suggested the relation of sea ice distribution to the millennial scale paleoclimatic/paleoceanographic changes.

Sea ice history in the northern Japan Sea during late Quaternary (since Stage 6) was discussed based on the occurrence of dropstone and ice-rafted debris. Spatial and temporal distribution of them suggested that 1) the southern margin of sea ice was located at the offshore of southernmost part of Hokkaido or of Oga Peninsula during the last glacial maximum, 2) low occurrence of dropstone and IRD during the last glacial maximum at the offshore of central Hokkaido, suggesting little melt of sea ice at this area, 3) sea ice occurred throughout the cores except of Holocene and Eemian sections, and 4) finer fluctuation in the occurrence of IRD suggested the more finer (millennial scale?) temporal variation of sea ice distribution related to fine scale paleoclimatic and/or paleoceanographic changes.