

SEDIMENTARY ENVIRONMENTS FROM LATE PLEISTOCENE TO HOLOCENE IN KUMAMOTO PLAIN IN CENTRAL KYUSHU, JAPAN

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Through the last glacial and post glacial periods, the sea level changed from lower to higher. After ca.20,000 y.B.P., the sedimentary facies of many core samples from the Kumamoto Plain were mainly divided into four in ascending order; rough alternation of silt and sand with peaty mud, blueish gray mud, sand and sandy silt. The cool and warm periods were recognized by pollen and diatom analyses from drilling core samples. Pollen data showed that vegetation from the last glacial period to early Holocene changed from cool temperate coniferous forest to deciduous broad-leaved forest and became broad-leaved evergreen at about 7,700 y.B.P. The changes of diatom assemblage from fresh water species abundance to marine species abundance occurred twice toward the end of the late Pleistocene. It showed that a transgression after the last glacial age occurred in the Kumamoto area. After that, the diatom's assemblage again changed showing marine species decreasing with the regression of sea level and cooling of climate. These data correlate with the data found in several marine isotope oxygen records of $\delta^{18}\text{O}$. The correlated data indicate the first warm period at about 14,500 y.B.P. and the cool period between the first and second warm periods is recognized as Younger Dryas at about 12,500 y.B.P. The upper cores intercalate a sand layer which resulted from regression and cooling after the climatic optimum.