

Reconstructing Climate Variability During the Last Ice Age Cycle in the Northeast Pacific Region

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This study is designed to reconstruct the climate variability in the Northeast Pacific during the last ice age cycle, including the glacial and deglacial transitions. One focus is the determination of how the climate variability in this region compares to the well-studied climate variability of the Northeast Atlantic, assessed using similar methodology. The study will also contribute to the regional picture of climate change and potentially provide new insights into the pattern of variability in the Northeast Pacific. Deep-sea sediment core AT26-19 09PC was collected west of the Juan de Fuca Ridge in the Northeast Pacific Ocean. Samples were analyzed in 1 cm intervals, representing approximately 300-year resolution. The abundance of mineral grains, planktonic foraminifera, and the polar foraminifera *N.pachyderma* was quantified using split aliquots of each sample. These data can then be related to deposition patterns of ice-rafted debris, preservation of foraminifera CaCO₃, and the varying presence of polar and subpolar waters at the study site. Taken together, the results provide additional information about the pattern of climate variability in the region, which can be compared to climatic and oceanographic patterns observed in the subpolar Northeast Atlantic to explore similarities in regional climate variations. In addition, there is potential for differences in the climate variability in the Northeast Pacific to be revealed, offering insights into the regional onset, progression and end of ice-age climate.