

Paleoclimate reconstruction based on pollen records from Late Pleistocene non-marine sequence in the Ibaraki Prefecture

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The purpose of this study is to reconstruct quantitatively a past climate during Marine Isotope Stage(MIS)6~5e in Ibaraki Prefecture by using pollen analysis.

Samples for pollen analysis were collected from 47 horizons at three locations in Ibaraki Prefecture. As a result of speculum and pre-treatment, we could find enough number of pollen grains from 14 horizons at one location. Fossil pollen and spore from those horizons that we identified were 33 taxa in total.

By using the modern analogue method to the results, we reconstructed three paleoclimate parameters (TANN:annual temperature, MTWA:mean temperature of the warmest month, MTCO:mean temperature of the coldest month). All reconstruction results show downward trend with each age, the paleoclimate of about 130 ka in Namegata,Ibaraki Prefecture was became clear that similar to present climate of Hokkaido and Sakhalin. However, this results was inconsistent with the opinion that layer of this study is deposit of transition to interglacial from glacial. The reason of this absurdity was presumed that reconstruction results of this study was paleoclimate of cooling short event in transition to interglacial from glacial.

Keywords: Pollen analysis, Paleoclimate, MIS 6/5 boundary