

## Development of a Palsa along the Denali Highway, Alaska

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Palsa is a peaty permafrost mound distributing in continuous and discontinuous permafrost zones. Main mechanism of the development the mounds is frost heave by ice segregation of peat or mineral soil material. Upper part of palsa usually consists of peat and lower part of a core of alternating layer of segregated ice and mineral soil material. History of paleo-environment around the period of last glacial retrieve in surrounding area can be inferred from analysis of palsa cores and stratigraphy. Our target palsa was located along the Denali Highway, Alaska, and the mound was truncated during highway construction in 1957. The outcrop of palsa have been eroded away from the highway line about 20m partly exposing the internal structure. This permafrost mound was firstly introduced as palsa by Pewe in 1983, and from dating of basal peat, deglaciation of this area occurred at least about 10500 year BP. History of palsa development and environment change was reconstructed from results of analysis from 6.5m core and ground temperature.

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