

The glaciological expedition to Mount Ichinsky, Kamchatka, Russia

**Sumito MATOBA¹, Sergey V. USHAKOV², Kunio SHIMBORI¹, Hirotaka SASAKI³,
Tetsuhide YAMASAKI⁴, Alexander A. OVSHANNIKOV², Alexander G. MANEVICH²,
Tatyana M. ZHIDELEEVA², Stanislav KUTUZOV⁵, Yaroslav D. MURAVYEV²
and Takayuki SHIRAIWA⁶**

1 Institute of Low Temperature Science, Hokkaido University, Sapporo 060–0819, Japan

2 Institute of Volcanology and Seismology, Russian Academy of Sciences, Petropavlovsk-Kamchatsky, Kamchatka Oblast 6830006, Russia

3 Graduate School of Environmental Science, Hokkaido University, Sapporo 060–0810, Japan

4 Geotech Co. Ltd., Nagoya 460–0022 Japan

5 Institute of Geography, Russian Academy of Sciences, Moscow 109017, Russia

6 Research Institute for Humanity and Nature, Kyoto 603–8047, Japan

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Abstract

During summer 2006, we carried out ice-core drilling to bedrock on a glacier at the summit of Mount Ichinsky, Kamchatka, Russia, and recovered a 115-m-long ice core. We also prepared samples, performed ice-core analyses in-situ, and measured the borehole temperature. The temperature of the borehole was -13°C at 10 m depth, and the pore close-off depth was 25 m. The melt-feature percentage, or the thickness of frozen ice layers in a 1-m-long section of ice core, varied from 10% to 100%. These ice layers were formed by both rainfall, surface melting, and frost on the glacier surface, which we observed during our expedition. We hypothesize that the fluctuations in the proportion of ice layers show climatic variation in Kamchatka.