

ACC022-P01

会場:コンベンションホール

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## ベルーハ氷河アイスコア中から見つかった好冷性酵母の高度分布

### Altitudinal distribution of psychrophilic yeasts contained relative species found from Belukha ice core

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Psychrophilic yeasts had been found from snow pit and ice core from Belukha glacier in Russian Altai mountains, and correspondence between depth of melting layer and yeast abundant layers show these yeasts would grow only in warm summer. However, ecological information of these psychrophilic yeasts on the glacier had not been studied well. In order to understand ecological distribution of these yeasts on the glacier, we measured viable cell numbers of psychrophilic yeasts by cultivation based method in 5 different altitudes sites in Gulkana glacier, Alaska, where ecological study of snow algae are reported. Most of culturable yeasts at 4 degree are related to psychrophilic species, and contain isolate closely related (99 %) to the uncultured yeast clone from ice core of Belukha glacier by phylogenetic analysis of the D1/D2 domains of 26S rRNA. This isolate is culturable even in extremely oligotrophic medium and no nutrient add agar medium. Colony forming unit (CFU) of all isolates from extremely oligotrophic medium and no nutrient add agar medium are highest in most upper parts of ablation area. These results support the hypothesis that uncultured yeast species from Belukha ice core can propagate in extremely oligotrophic condition and this species can be habitable in wide altitudinal range on glacier.