

Fungi that inhabit polar-region can grow and decompose organic compounds under subzero temperatures play important roles in the nutrient cycle of polar-region ecosystems. Thus, changes in the mycoflora affect the ecological recycling in these regions, and understanding the cold-adaptation strategies of fungi under extreme environments is critical for a better understanding of polar-region ecosystems. Due to their ability to survive under extreme environments, fungi in polar-region are seen to show potential for utilization in biotechnologies. This book presents our current understanding of the mycoflora in polar-region and their cold adaptation strategies, and applied studies using their abilities.

Masaharu Tsuji worked at the Hokkaido center, National Institute of Advanced Industrial Science and Technology as a technical staff member with Dr. Tamotsu Hoshino in 2009. He was awarded the Ph.D. degree in Agriculture from Iwate University, Japan, in March 2015. In April 2015, he joined the Biology group, National Institute of Polar Research as a Project Researcher. His current research interests include mycoflora in Polar region, cold adaptation strategies for them and utilization of their potential for biotechnology.

Tamotsu Hoshino received Ph.D. in fungal biotechnology from Graduate School of Agriculture, Nagoya University in 1992. He has developed ecophysiological characteristics of fungal cold adaptation from snow molds in the Arctic to Antarctica via Siberia. His research interests include cold adaptation of fungi from molecular to ecological level, speciation of fungi in cold environments and effects of climate change on cold-adapted fungi. He was a Board Member of Trustees of Mycological Society of Japan (2013-2016).



CRC Press

Taylor & Francis Group
an informa business

www.crcpress.com

