

For better understanding of the Southern Ocean history

*Itsuki Suto¹, Yuji Kato¹, Saki Ishino¹, Keiji Hattori¹, Keigo Takahashi², Ryosuke Makabe^{3,4}

1. Department of Earth and Planetary Sciences Graduate School of Environmental Studies, Nagoya University, 2. Graduate School of Marine Science and Technology, Tokyo University of Marine Science and Technology, 3. Bioscience Group, National Institute of Polar Research, 4. School of Multidisciplinary Sciences, The Graduate University for Advanced Studies

The hard parts, such as calcareous shell and siliceous valve, of the zoo- and phytoplankton including foraminifers and diatoms are preserved in sediments as microfossil. They have been used to know the sedimentary ages and paleoenvironment. In the Southern Ocean, several paleoceanographic studies have been continued using microfossils from the sediments. However, detailed ecological preference of the marine plankton, which is essential for paleoenvironmental reconstruction, has not completely clarified yet, due to the difficulty of gaining access to the Southern Ocean. In this presentation, we review recent results of the paleoenvironmental reconstruction in the Southern Ocean using siliceous microfossils, and then discuss several problems of paleontological/paleoceanographic studies.

Keywords: siliceous microfossils, paleoceanographic reconstruction, Southern Ocean, ecosystem