

## Trace elements and ionic components in snow cover at elevated mountain areas in Akita, Japan

Osamu Kiguchi<sup>1</sup>, Yousuke Yamashita<sup>2</sup>, \*Makoto Inoue<sup>1</sup>, Takashi Kobayashi<sup>3</sup>

1. Department of Biological Environment, Faculty of Bioresource Sciences, Akita Prefectural University, 2. Japan Agency for Marine-Earth Science and Technology, 3. Akita Research Center for Public Health and Environment

In general, air pollutants from the Asian continent reach Japan due to long-range transport by the westerlies. Northwesterly wind prevails during winter and brings heavy snow in some regions along the Japan Sea side of Japan. The pollutants originating in the continent can be dissolved and conserved in snow cover at elevated mountain areas. In order to examine the contamination levels at mountain areas in Akita, we collected the surface snow samples from Mt. Moriyoshi located in Akita, northern Japan, and analyzed them for the trace elements and the major water-soluble ions. We also conducted the principal component analysis and trajectory analysis to clarify the source of the air pollutants. In this presentation, we will show the results in 2011 and 2012.

Keywords: air pollutants, snow, trace element, ion component, Akita prefecture, mountain area