

# The 1649 AD pyroclastic fall deposits of Nikko-Shirane Volcano

\*Yuki Kusano<sup>1</sup>, Teruki Oikawa<sup>1</sup>, Yoshihiro Ishizuka<sup>1</sup>

1. Geological Survey of Japan, AIST

Nikko-Shirane Volcano is an active volcano on the border between Gunma and Tochigi prefectures. The largest eruption on historic record occurred in 1649 AD. Eruption products of the 1649 AD eruption are correlated with a muddy-pyroclastic fall deposit below the surface soil at the foot of Nikko-Shirane Volcano (Okuno, 1993; Suzuki et al., 1994). Recently, we conducted six trench surveys around the summit of Nikko-Shirane Volcano and detected the 1649 AD eruption product (Kusano and Ishizuka, 2020). Based on the stratigraphy, thickness, grain size and composition of pyroclastic fall deposit, we will present the summary the eruption products and volume of the 1649 eruption. According to three estimation methods of the eruption volume by Geshi et al. (2010), Hayakawa (1985) and Fierstein and Nathenson (1992), evaluated volume of this eruption is at least  $2-3 \times 10^7 \text{ m}^3$  which is one digit larger than the estimation before (Okuno, 1993).

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