

Eruption history and magma plumbing system during the post-caldera stage in Mashu volcano, eastern Hokkaido

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Mashu volcano is characterized by repeated explosive eruptions during 35 thousand years, and formed a caldera (6 x 7 km diameter) by successive plinian eruptions and following a large-scale pyroclastic flows at about 7500 years ago (Katsui et al., 1975; Sumita, 1990; Hasegawa et al., 2009; Kishimoto et al., 2009). After the formation of the Mashu caldera, magma plumbing system has been changed on the basis of difference in chemical compositions of the rocks between caldera stage and post-caldera stage. However, the magma plumbing system during the post-caldera stage has not been clarified. We show detailed eruptive sequence during the post-caldera stage including effusion period of lavas, and transition process of magma plumbing system of the post-caldera stage.

Keywords: Mashu volcano, post-caldera stage, eruption history, magma plumbing system, radiocarbon¹⁴C age