

Tephra Stratigraphy on Izu Islands: Correlation of Rhyolitic Tephra from Niijima and Kozushima Volcanoes

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Volcanic histories of individual active volcanoes in the Izu Islands have been understood fairly well by recent works. But accuracy of the timing of volcanic events is not satisfactory, because their age are not always recorded in documents or determined by marker tephra.

In this study, widespread AT ash (22ka) and four rhyolitic tephra that covering the islands are correlated. Chichibuyama pyroclastic surge deposit B (25ka), from Kozushima volcano, were confirmed on Niijima. Chichibuyama pyroclastic surge deposit A (19ka) from Kozushima volcano were confirmed on Izu-Oshima, Niijima, Miyakejima, and Hachijyojima. Miyatsukayama tephra(14ka) and Shikinejima tephra(10ka), derived from Niijima volcano, were confirmed on Izu-Oshima. (Eruptive ages of tephra are estimated by Machida and Arai, 1992 and Yoshida, 1992).

These results indicate that tephra derived from Niijima and Kozushima volcanoes contribute to construct an age-control standard section in these islands.