

## Volcanic history of western and northwestern margins of Aira caldera implied from K-Ar dating

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Potassium-argon dating has been applied to the volcanic rocks from western (Yoshino-dai) and northwestern (Aoshiki) margins of Aira caldera which occurred explosive Aira pyroclastic eruption at 25,000 yr BP. The results show that the Yoshino pyroclastic flow deposit and the Nanayashiro basalt which are the upper volcanic sequences at the caldera wall in Yoshino-dai erupted from 0.45 Ma to 0.35 Ma. The ages imply that the old volcano which erupted those deposits had a volcanic activity at least until 0.35 Ma and then disappeared in the caldera. The K-Ar age, 0.08 Ma, from Aoshiki basaltic-andesitic rock show the presence of magmatic activity of basalt before a few ten thousand years than the Aira pyroclastic eruption, which is important in the evolutionary history of the magma chamber.