

Re-description and correlation of tephra layers in the Tama-I Loam Formation

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Tephrostratigraphic study was carried out on the Middle to Upper Pleistocene which was distributed in center part of Kanto Plain. Hornblende-rich pumiceous tephtras were detected from borehole cores of the Middle Pleistocene. The correlation candidates of those tephtras were not found from the upper part of the Kazusa Group to the middle part of the Shimosa Group. The reason is because the center part of Kanto Plain is located on the north side of the range of the tephtras from Hakone Volcano which is the main source of pumiceous tephtras of the Kazusa and Shimosa Group.

On the other hand, a lot of hornblende-rich pumiceous tephtras intercalated in the Tama-I Loam Formation distributed on the northern part of the Tama hill, the hills of the western margin of Kanto Plain and the Odamaki hill in Chichibu Basin (Tama101-128; Kanto Ash Layers Research Group, 2001). In this study, we redescribed the tephtras of the Tama-I Loam Formation in the Odamaki hill to examine the correlation between these tephtras and tephtras from center part of Kanto Plain. In addition, we examined petrographic properties and chemical composition of volcanic glass shades of the tephtras from Yatsugatake and Kurofuji Volcano, and the Inubo Group (Sakai, 1990) near the horizon of the TE-5 (Tama118). As a result, the following findings were obtained.

1) Each refractive index of the hornblende of Tama-I Loam Formation tephtras in the Odamaki hill shows a similar characteristic in range (1.665-1.674) and mode (1.668-1.671) excluding Tama105.

2) Suzuki (2000) and Machida and Arai (2003) correlated Tama120 to ho-white pm and TE-5up (Saito, 2000). However, because neither mineral composition nor refractive index and the chemical composition of volcanic glass shades are corresponding, these tephtras seem another tephtras respectively.

3) The chemical composition of volcanic glass shades of the Kurofuji pyroclastic flow deposit intercalated under the TE-5 in the Sone hill, Kofu Basin and the TE-5up from the Inubo Group is corresponding well. The source of the TE-5up might be Kurofuji Volcano.