Late Pliocene widespread tephras of the Inubou Group in the Choshi district :Detection of the Mitsumatsu, Tng and Hap2 tephras

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The Plio-Pleistocene Inubou Group distributed in the Choshi district. The age of the Inubou Group is estimsted to be the same of Kazusa Group in the Boso Peninsula based on microfossil biostratigraphy and magnetostratigraphy(Sakai,1990). The key tephra layers of the Yokone and Obama Formations of the upper part of the Inubou Group are correlated with the Ch2,Ku6,U6-U8,O3-O7,Kd5-Kd39 tephra layers in the Kazusa Group(Okada et al.,1998 and Fujioka and Kameo,2004). The Inubou Group is unconformably underlain by the MIocene sediments. The age of the lower part of the Inubou Group is very important. We examine the tephras contained in the Kasuga and Naarai Formations of the lower part of the Inubou Group.

In this study, the Kg3 tephra interbedded at the lower part of the Kasuga Formation, is correlated with Mitsumatsu tephra(1.9Ma) in the Osaka Group and HSC tephra in the Kazusa Group. The Mitsumatsu-HSC tephra is widely distributed in Kinki and Niigata area. The similarity of folloeing features confirms the correlation between Kg3 and Mitsumatsu-HSC:mineral assemblage,refractive index of the volcanic glass and chemical composition of the volcanic glass,rich in Ba.

The Kg2 tephra can be seen about 30m lower horizon from Kg3. Kg2 is correlated with Oh1 tephra under horizon from HSC in the Kazusa Group and Kiryu1 tephra under horizon from Kiryu2 in the Kobiwako Group, on the basis of the chemical composition of glass,poor in K2O and Ba.

The Na5 tephra interbedded at the upper part of the Naarai Formation, is correlated with Taniguchi tephra(2.2-2.3Ma:Machida et al.,2001). Taniguchi tephra is widely distributed in Hokuriku and Niigata area.

The Na4a tephra is correlated with Hap2 tephra(2.4Ma:Kurokawa,1999). Hap2 tephra is distributed in Niigata area.

Based on the tephra correlation, the sedimentary age of the lower part of Inubou Group is estimated to be 1.9-2.4Ma.