

Depositional system of the early Pleistocene Inagi Formation, Kazusa Group in the northwest Tama Hills, central Japan

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The Tama Hills is composed by the late Pleistocene to middle Pleistocene Kazusa Group. The Kazusa Group is typically distributed in the Central Boso Peninsula and composed underground of the Kanto Plain and hills edging the plain. Fossils of mollusk, animals and plants occur from shallow marine to non-marine Kazusa Group in the Tama Hills. Because, the Kazusa Group of the Tama Hills reflects environmental changes such as eustacy, it is important to reconstruct the paleo-environmental change the Early Pleistocene in the southern Kanto region with investigation of this area.

In this study, we focus on the Inagi Formation distributed in the northwest Tama Hills. The lower to middle member of Inagi Formation are composed of gravel and sandy silt respectively, whereas the upper Member of is composed by sand (Takano 1994). Kikuchi (1984) estimated that the formation of northwest Tama Hills is delta. The upper Member of Inagi Formation was estimated as delta topset. Shirai and Imamura (2013) reported barrier island, estuarine and shoreface sediments from the upper Member.

We estimated the depositional-environments of Inagi Formation with a facies analysis. The top of sand layer from middle mud layer in Inagi formation divided to the estuary unit, barrier island unit, shoreface-foreshore unit, Bay-head delta unit. Therefore, it was estimated that a comprehensive barrier island system include these four depositional units as a "small" estuary within a "brood" back- barrier area. The estuary formed very broad bay accompanied by the barrier island overlying of the bay-head delta unit on the shoreface-foreshore unit implies that estuary and tidal-channel unite may have been formed.

Keywords: Facies analysis, Kazusa Group, Inagi Formation, estuary