

Depositional environment of the early Pleistocene Inagi Formation, northern edge of the Tama Hills, central Japan

Masaaki Shirai^{1*}, Akiho Imamura²

¹Tokyo Metropolitan University, ²Navitime Japan

The late Pliocene-early Pleistocene Kazusa Group distributing southern Kanto District occurs the Tama area, SW Tokyo. Depositional environment of the Inagi Formation, upper Kazusa Group has been estimated as delta front or foreshore, which is distinguished from lower formations in Kazusa Group at the Tama area.

Although exposure of the Kazusa Group around the Tama area is limited now, a good exposure remains on the northern edge of the Tama Hills. Above the ca. 1.5 Ma volcanic ash, well laminated tuffaceous sand layer is observed. Northward?westward dipping cross lamination means landward paleo-current and lenticular bedding means temporal changes in direction and velocity of current. These sedimentary structures suggest existence of barrier-island. Intensely bioturbated sand layer below the laminated tuffaceous sand layer is interpreted as estuarine deposits.

The barrier-island deposits of the Inagi Formation is significant because barrier island deposits has not been reported from the Kazusa Group in the Tama area despite of common occurrences of back-barrier deposits.

References

Reinson, G.E. (1982) Transgressive barrier island and estuarine systems. In Walker, R.G. and James, N.P. eds., Facies models response to sea level change. Geol. Soc. Can., 179-194.

Suzuki, T. and Murata, M. (2011) Stratigraphy and correlation of tephra in the Lower Pleistocene Kiwada Formation and its correlative beds, Kanto, Central Japan. Jour. Geol. Soc. Japan, 117, 379-397.

Takano, S. (1994) Stratigraphy of the Lower Pleistocene Kazusa Group in the Tama Hills, central Japan. Jour. Geol. Soc. Japan, 100, 675-691.

Keywords: Kazusa Group, Tama Hills, Inagi Formation, depositional environment, barrier?island