

Correlation of early Pleistocene tephra between Tama Hill and mouth of Tama river, Tokyo

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<http://www.sci.metro-u.ac.jp/geog/gmorph/>

This study clarified correlations of early Pleistocene tephra layers distributed in Tama Hill with those found in a boring core at Haginaka Park in Ota Ward, most lower reach of Tama River, south Tokyo, central Japan. H2 tephra (101.68-101.73 m depth) is correlative to HU2 tephra in the middle part of Oyamada Formation of Kazusa Group in Tama Hill. By previous study, HU2 tephra is identified as Kd25 (1.65 Ma) tephra in Kiwada Formation of Kazusa Group in Boso Peninsula and also as Omine Tephra derived from a volcano in Hida Mountains. H3 tephra (101.23-101.37m) 31 cm above H2 is identified as HU1 immediately above HU2 in the middle part of Oyamada Formation. NG-L tephra in Inagi Formation of Kazusa Group is correlated to H20 tephra (61.60-61.68 m depth) on the basis of chemical composition of major elements and shape of volcanic glass shards. NG tephra (above NG-L) in the upper part of Inagi Formation is correlative to H27 tephra 5 m above H20 tephra in the core. H27 and NG are also correlative to Kd21 tephra in Kiwada Formation of Kazusa Group in Boso Peninsula. By the correlations of tephra layers above shown, the middle part of Oyamada Formation distributed in the altitude of 150 to 50 m asl. in the west part of Tama Hill is corresponded to the sediments found in c. 100 m asl. in the most lower reach of Tama River. Also, the upper part of Inagi Formation distributed in the altitude of 150 to 30 m asl. in Tama Hill is corresponded to the sediments found in c.-60 m asl. in the most lower reach of Tama River. Original altitudes of each correlative sediments are not so different at the depositions. It is most likely that the difference in present altitudes are resulted from crustal movement associated with the formation of Kanto Tectonic Basin.