

## The widespread tephra layers of the Omma Formation distributed in Kanazawa area

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The Omma Formation is distributed over a large area in Kanazawa. This formation yields many molluscan fossils belong to the Omma-manganzi Fauna. There are so many studies about the Omma Formation by microfossil and archeomagnetism (e.g. Hasegawa, 1979; Takayama et al., 1988; Omura et al., 1989). However, it is not researched well about the tephra layers expecting three tephra layers (O1, O2 and O3), exposed the type locality at the Sai River. Accordingly, the age of this formation is estimated by biostratigraphy and paleomagnetic stratigraphy to be 170-160Ma~80Ma (Kitamura, 2001).

This study examines the tephra layers contained the Omma Formation and indicates that this formation includes ten tephra layers (Om1~Om10). Om8 is correlated to the Fukuda-Tsuzimatagawa-Kd38 volcanic ash layer, which is a widespread tephra layer in the horizon close to the Pliocene-Pleistocene boundary occurring in central Japan. The age of this tephra is estimated to be 1.75Ma. Further Om10 is correlated to the Omine-SK110-Kd25 volcanic ash layer, a widespread tephra layer (1.65Ma) occurring central Japan. The following similarities confirm the correlation between Om8 and the Fukuda-Tsuzimatagawa-Kd38 volcanic ash layer, Om10 and the Omine-SK110-Kd25 volcanic ash layer: mineral assemblage, refractive indices of the volcanic glass and orthopyroxene, and the chemical composition of the volcanic glass. We estimate the age of the Omma Formation based on the tephra correlation is older than previous works.