

On-Pm1 tephra and marine deposits covering the tephra in the Choshi district, eastern Kanto Plain

*Hiroomi Nakazato¹, Masakazu Nara², Hiroko Okazaki³, Kiyohide Mizuno⁴, Hisatoshi Ito⁵

1.NARO, 2.Kouchi Univ., 3.Natural History Museum and Institute, Chiba, 4.AIST, 5.CRIEPI

In the Choshi district, eastern Kanto Plain, Shimosa Upper Terraces are widely distributed which are composed by the Katori Formation correlated with the Kioroshi Formation of the Shimosa Group. Shimosa Lower Terraces and younger geomorphologic surfaces are distributed in the east side of the Choshi district (Sugihara, 1976; 2000; 2008). Nakazato et al. (2015) detected the tephra that abundantly contained pumice type volcanic glass and hornblende. They showed the possibility of the correlation between the tephra and On-Pm1, based on the refractive indices and chemical compositions of the volcanic glass and hornblende.

The Zircon U-Pb dating using LA-ICP-MS (Ito, 2014) was applied to the tephra in this study. As a result, the obtained age of 100 ± 60 ka improved the reliability of the correlation between the tephra and On-Pm1.

The outcrop where the tephra was detected shows the following stratigraphy: mud and sand stone of the Kasuga Formation of the Inubo Group, unconformity, shoreface sand, terrestrial mud interbedding the tephra (On-Pm1), shoreface sand with *Macaronichnus* isp., beach sand, fluvial deposits, Younger Kanto Loam and Holocene dune deposits in ascending order. The age of marine sand overlying the On-Pm1 (95.7 ± 5.3 ka: Aoki et al., 2008) is more likely to be MIS5a.

Reexamination is necessary about the geomorphic and geotectonic history in this district because it has been assumed that the MIS5a surfaces are distributed in lower altitude area than this point.

REFERENCES

Ito, H. (2014) Journal of Volcanology and Geothermal Research 289, 210-223.

Nakazato, H. et al. (2015) Abstracts, Japan Association for Quaternary Research 45,8-8.

Sugihara, S. (1976) Proceeding, Association of Japanese Geographers 10, 282-283.

Sugihara, S. (2000) Regional Geomorphology of the Japanese Islands vol. 4 Geomorphology of Kanto and Izu- Ogasawara, 214-232, Univ. of Tokyo Press.

Sugihara, S. (2008): Regional Geology of Japan vol.3 Kanto, 322-325, Asakura Pub. .

Keywords: MIS5c, tephra, geomorphic surface