Re-examination on correlation of Early Pleistocene tephras in Inubo Group at Byobugaura in Choshi Area, Northeast Japan

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The Plio-Pleistocene Inubo Group composed of marine deposit is distributed in Choshi area of Chiba Prefecture. Sakai (1990) examined the lithostratigraphy of Inubo Group based on key tephras. Fujioka and Kameo (2004) correlated the key tephras in the Obama Formation of Inubo Group with U6A, U7, and U8 in the Umegase Formation, O3 and O7 in the Otadai Formation and Kd5A, Kd16, Kd24, Kd25, Kd38 and Kd39 in the Kiwada Formation of Kazusa Group in Boso Peninsula on the basis of characteristic properties of the tephras. Inubo Group can be the standard tephrostratigraphy of Kazusa Group in central Kanto plain and western hills of this plain, because Inubo Group correlative to Kazusa Group crops out continually at Byobugaura and is located in east end of the Kanto plains. In this study, for the purpose of establishment of the stratigraphy of early Pleistocene tephras under the Musashino upland, tephras which are not correlated by Fujioka and Kameo (2004) in the Obama Formation of Inubo Group at Byobugaura were re-examined on basis of refractive indices of volcanic glass and heavy minerals and chemical composition of volcanic glass shards. As a result, the following tephras are identified in Obama Formation of Inubou Group, that is, O18A tephra in the Otadai Formation, Kd8A, Kd17, Kd18, vitric tephra 10 m above of Kd22, Kd23B tephra in the Kiwada Formation of the Kazusa Group. The vitric tephra 10 m above of Kd22 is correlative to Shirakawa-Kumado Tephra (Sr-Kmd) derived from the Aizu area of Fukushima Prefecture (Suzuki and Murata, 2007). These correlations of tephras are consistent with the result of Fujioka and Kameo (2004). These correlations will play a significant role in construction of tephrostratigraphy of early Pleistocene Kazusa group in southern Kanto area.