

## Are the Iwadonosan Formation and the Momonoki Subgroup a syntaxis?

# Hotaka Ito[1]; Junichiro Kuroda[2]; Ken-ichiro Hisada[3]

[1] Earth Evolution Sci., Univ. Tsukuba; [2] IFREE, JAMSTEC; [3] Grad. School Life and Envir., Univ. Tsukuba

hotaka12@arsia.geo.tsukuba.ac.jp

The Neogene volcanoclastics and terrigenous clastics are distributed in the South Fossa Magna. The Shiotsu and Hinate Formations of the Tsuru Group are composed mainly of volcanoclastics, and the Iwadonosan Formation of the Nishikatsura Group is composed mainly of conglomerate in ascending order in the Iwadonosan area (the central part of Otsuki City, Yamanashi Prefecture). Ito et al. (2006) concluded that the Shiotsu, Hinate, and Iwadonosan Formations were assigned to early Middle Miocene (17.0-14.2 Ma; Zones N8, N9) based on planktonic foraminifera. On the other hand, there are the Shimada, Iwadonosan, and Nakamagawa Formations of the Nishikatsura Group in ascending order in the Uenohara area (the eastern part of Otsuki City to the western part of Uenohara City, Yamanashi Prefecture). The age of the Iwadonosan Formation has been dated to 7-5.5 Ma (Aoike, 1999; Sugita, 1962) based on calcareous nannofossils from the Shimada Formation (8.5-7 Ma) and foraminifera fossils from the Nakamagawa Formation (5.5-4 Ma).

However, it is difficult to correlate the Iwadonosan Formation in the Uenohara area to the Iwadonosan Formation in the Iwadonosan area, because their ages are remarkably different. In the South Fossa Magna, the Momonoki Subgroup of the Koma Group is known as formations which indicate the similar age to the Iwadonosan Formation in the Iwadonosan area.

The Koma Group is composed of the Kushigatayama and Momonoki Subgroups which consist mainly of volcanoclastics and terrigenous clastics, respectively (Kosaka and Tsunoda, 1969). The lithofacies of the Tsuru Group and the Kushigatayama Subgroup are similar in terms of including tuff, tuffaceous sandstone, and lava flow. The Momonoki Subgroup consists of mudstone, alternation of sandstone and mudstone, and conglomerate, whereas the Iwadonosan Formation is composed almost exclusively of conglomerate. The Iwadonosan Formation is made up from pebble to cobble-sized conglomerate which is matrix-supported and well-sorted, but the Upper Formation of the Momonoki Subgroup consists of granule to pebble-sized conglomerate which is clast-supported and poorly-sorted. The depositional environment of the Iwadonosan Formation indicates fan-delta and the Momonoki Subgroup indicates submarine fan to fan-delta. Although it is difficult to correlate the Iwadonosan Formation to the Momonoki Subgroup in details, they are common in terms of development of fan-delta in 15-14 Ma.