

## Paleoenvironmental changes in Honshu-Tanzawa collision zone-the case of the Tertiary Tsuru and Nishikatsura Groups-

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The Tsuru and Nishikatsura Groups are distributed in the northern and western edges of the Tanzawa mountains, South Fossa Magna, central Japan. The Tsuru Group consists mainly of volcanoclastic rocks of the Shiotsu and Hinate Formations. The Nishikatsura Group consists of non-volcanic sedimentary rocks of the Iwadonosan Formation. The Iwadonosan Formation is lithologically divided into Units 1, 2, and 3.

Three new discoveries concerning the paleoenvironmental changes in the Honshu-Tanzawa collision zone were obtained in this study. The first one was the paleocurrent directions from imbrication in conglomerate of the Iwadonosan Formation. The second one was the gravel composition of conglomerate of the Iwadonosan Formation. The last one was the determination of ages of the Shiotsu, Hinate and Iwadonosan Formations from foraminifera fossils.

The fact that the Iwadonosan Formation is of the earliest Middle Miocene provides the following three reconsidering interpretations. The first possibility is that the Iwadonosan Formation was the fill deposit of trough just before the collision of Koma Block to Honshu Arc. The second one is that the other block had been collided to Honshu Arc before the collision of Koma Block. The last one is that coarse-grained clastics such as conglomerate don't show any date of a collision.

The deposition of the Shiotsu and Hinate Formations in the earliest Middle Miocene indicates the sedimentary environment of the periphery of submarine volcanoes. After that the depositions of Units 1 and 2, and 3 of the Iwadonosan Formation suggest the sedimentary environments like brackish fan delta and terrestrial braid delta, respectively. In conclusion, the Iwadonosan Formation seems to have been trough-filling sediments before Koma Block collided to Honshu Arc, just the same as the Momonoki Subgroup in the Koma mountains.