

Paleogeographic position of the Permian Iwaizaki limestone in South Kitakami belt

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The Guadalupian (Middle Permian) Iwaizaki limestone in the South Kitakami belt, NE Japan, represents an isolated block of ancient continental margin that features non-metamorphosed Lower Paleozoic to Mesozoic shallow marine sequences. We detected for the first time a bivalve assemblage that features alatoconchidae from the upper part of the Iwaizaki limestone. According to the 10 previous reports from the world, the occurrence of alatoconchidae is strictly limited to low-latitude, i.e. paleo-equatorial domains. Their unique habitat in shallow warm-water, oligotrophic setting was likely related to photosymbiosis. Together with large-tested fusuline (e.g., *Lepidolina*) and rogo coral, the Capitanian tropical trio from Iwaizaki positively indicates the intimate connection between South Kitakami belt and South China during the Permian. This further suggests that the eastern extension of South China continues all the way through the main part of Japan up to NE Japan, and that the South Kitakami belt represents its eastern extremity ever confirmed.

Keywords: Permian, paleogeography, South Kitakami belt, Panthalassa, South China, Guadalupian