Marine strata and fossils of the Kuwajima Formation, Itoshiro Subgroup of the Tetori Group, in the Setono area, Hakusan City, Ishikawa Prefecture, central Japan

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The presence of marine strata in the Itoshiro Subgroup of the Tetori Group has attracted much attention recently. The marine deposits within the Kuwajima Formation of the Itoshiro Subgroup in the Setono area, Hakusan City of Ishikawa Prefecture, was recognized based on the sedimentary facies analysis and the occurrence of ichnofossils of limuloids (Matsuoka et al., 2009). A tuff bed overlying limuloid ichnofossils indicated an U-Pb age of 130±0.8 Ma (Kusuhashi, 2008). Thus, the marine Kuwajima Formation in the Setono area is one of a few horizons where their stratigraphy, sedimentary environments, and numerical age have been recognized. We conducted the sedimentary facies analysis in this area, and extracted radiolarians and sponge spicules from 2 marine horizons. Radiolarians show drop-like outlines, which are common in the Jurassic and Cretaceous intervals, under an optic microscope. Sponge spicules are mainly composed of diactinal megascleres with blunt to rounded ends. This is the first record of marine microfossils of the middle Early Cretaceous age from the Tetori Group, suggesting the future contribution of radiolarian biostratigraphy and/or paleoenvironmental reconstruction using these fossils to the Itoshiro Subgroup. Other marine to brackish water megafossils from this area are also examined: a shell accumulation of Myrene (Mesocorbicula) tetoriensis with a small amount of Ostreidae gen. et sp. indet. in the studied sequence, and a belemnite fossil in sandstone float boulder, which probably suggests the presence of another marine horizon in this area.

Keywords: Tetori Group, Kuwajima Formation, radiolaria, belemnite