

Radiolarians from a Permian accretionary complex in the Kitagawa area of the Kurosegawa Belt, Southwest Japan

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The Kurosegawa belt in the Kitagawa area, Tokushima Prefecture, consists mainly of Early Paleozoic granitic rocks, high-grade metamorphic rocks, serpentinites, and Permian-Jurassic shallow marine sediments. These diverse rock suites are highly disrupted, forming lenticular bodies within the Permian-Early Jurassic accretionary complex (Hara et al., 201). The Permian accretionary complex is composed mostly of mélangé-type rocks and sheared sandstone and shale. The mélangé-type rocks include basalt, limestone, chert, siliceous shale, and sandstone, all within an argillaceous matrix. In the present study, I focus on the lithostratigraphy of the Permian accretionary complex and its biostratigraphic age based on radiolarians.

The Permian accretionary complex is distributed mainly in Higashi-semidani, Nakatani, and Shiraishi. Based on the lithology, rocks in this area are subdivided into three units: H1 to H3. The H1 unit is composed mainly of sheared shale and alternating sandstone and shale with a minor amount of siliceous shale. The H2 unit consists of a mélangé including basalt, limestone, chert, and sandstone. The H3 unit is composed of a mélangé containing chert and sandstone. These units are bounded by faults. Chert samples (2014071605 and P1 of the H2 unit) contain *F. scholasticus* and *F. ventricosus*, indicating a Middle Permian age. From siliceous shale (2012080803 of the H1 unit), *A. cavitata* was recovered. In addition, *A. protolevis* and *A. levis* were obtained from shale (2012080901 of the H2 unit). Based on the occurrences of these *Albaillella* species, the siliceous shale and shale were assigned to an early Late Permian age that can be approximated to the age of accretion.

References

Hara, H., Kurihara, T. and Mori, H., 2013, Tectono-stratigraphy and low-grade metamorphism of Late Permian and Early Jurassic accretionary complexes within the Kurosegawa belt, Southwest Japan: Implications for mechanisms of crustal displacement within active continental margin. *Tectonophysics*, **592**, 80-93.