

Geology and radiolarian fossils of the Misogawa Complex of the eastern Mino Terrane in the Kaida area, Nagano Prefecture, central Japan

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The Jurassic subduction complex of the eastern part of the Mino Terrane, central Japan is divided into six complexes on the basis of lithology, age and structure. The Misogawa Complex has the youngest age and is widely exposed in the eastern Mino Terrane. Many reports of radiolarian fossils have been published in the Misogawa Complex (e.g., Okumura and Otsuka, 1996; Shuto and Otsuka, 2003). Otsuka (1988) carried out an important study from a structural point of view. However, research on geology and radiolarian dating is scarce in the northern part of the Misogawa Complex comparing in the southern part.

In this study, we are making a geological map of the Kaida area located in the northern part of the Misogawa Complex. The Misogawa Complex in the study area is subdivided into Unit A, B and C on the basis of lithology. Unit A is composed of chert. Unit B is characterized by the dominance of sandstone. Unit C consists of mudstone and mélange composed of sandstone blocks and sheared mudstone matrix.

In addition, we are trying to determine the radiolarian ages of constituent rocks of the Misogawa Complex. We have collected about 90 samples of chert from Unit A. Of these, 10 samples were treated with HF and radiolarian fossils were found from three samples.

References

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