

New tectonostratigraphic unit of the Ashio terrane in the Ashio Mountains, central Japan

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The Ashio terrane, a Jurassic accretionary complex, is distributed over the Ashio Mountains of Gunma and Tochigi prefectures, central Japan. Previously, the Ashio terrane is divided into three tectonostratigraphic unit, namely the Kurohone–Kiryu, Omama and Kuzu complexes. The author has recognized new tectonostratigraphic unit (tentative name: Complex A) from the Ashio terrane. The characteristics of Complex A are described here.

Complex A is distributed over mainly the Hachioji hills and Mt. Gyodosan in Tochigi and Gunma prefectures. This complex overlies tectonically the Kuzu Complex and consists mainly of muddy mixed rock and chert with minor amounts of blocks of sandstone and siliceous mudstone. Early–middle Permian, Triassic and Middle Jurassic radiolarians were obtained from chert. Middle Jurassic radiolarians were extracted from siliceous mudstone and mudstone.

The presence of the Permian chert without basalt and carbonate is the notable characteristic for the comparison with other terrane such as the Tamba and Mino terranes. Although some tectonostratigraphic units of the Tamba and Mino terranes possess Permian chert, these generally include abundant basalt and carbonate as well. Meanwhile, Complex A has no basalt nor carbonate. The comparison indicates the uniqueness of Complex A, suggesting that the complex has unusual geologic history.

Keywords: radiolaria, Permian chert, Ashio terrane, Jurassic accretionary complex, Ashio Mountains