

Tectonostratigraphy of the Jurassic accretionary complexes in the Akkamori-Oguni area, North Kitakami Belt, Northeast Japan

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The North Kitakami Belt, Northeastern Japan, is a northern extension of the South Chichibu Belt of Southwest Japan, a Jurassic accretionary complex, but little has known about the age-tectonostratigraphic relations in the former (e.g. Suzuki et al., 2007) because of high thermal metamorphism caused by Early Cretaceous plutonic activity. We revisited the boundary area of the Kuzumaki-Kamaishi and Akka-Tanohata Subbelts in the Akkamori-Oguni area, Northern Kitakami Massif, where Sugimoto (1974) mapped the detailed lithostratigraphic distributions, to reconsider the tectonic history of the North Kitakami Belt.

Our field mapping in this area concluded that Sugimoto's lithostratigraphic division is principally allowable in the oceanic plate stratigraphic point of view, and thus we revised his lithostratigraphic units as six tectonostratigraphic units: the Magidai, Akka, Takayashiki, Seki, Kassenba and Ohtori Units, ascending in tectonostratigraphic order. We newly reinterpreted that the Seki and Kassenba Units both comprise structurally repeated chert-clastic sequence. Age-diagnostic conodonts and radiolarians were newly found from several locations: the Middle Jurassic radiolarians from siliceous mudstone of the Takayashiki Unit, the late Carboniferous conodonts from red chert and the Early to Middle Triassic conodonts from white chert of the Seki Unit, and the early Permian conodonts from white chert of the Kassenba Unit. Black claystone with the high total organic carbon content is also newly detected in the Seki Unit, presumably the presence of Permian-Triassic boundary.

Compiling the new and exist data (e.g. Takahashi et al., 2009) in our study and adjacent areas, we strongly suggest the age-lithostratigraphic similarity among the Seki, Kassenba and Otori Units. Our fossil data and Ehiro et al. (2008) also show that the accreted age of the Seki Unit appears to be younger than that of the tectonically underlying Takayashiki Unit, suggesting reallocation of these two units by the Iwaizumi Tectonic Line.