

New age constraints and tectonic significance of Late Oligocene marine biosiliceous deposits in the Hidaka Belt, northeastern Hokkaido, northern Japan

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The Tatsuushi Formation distributed in the Kitami-Monbetsu area consisted of siliceous mudstone, and has been incorporated into the Hidaka Supergroup along associated with the surrounding the Uenkotan and Rurochi Formations (Tajika and Iwata, 1994). In this study, the depositional age of the Tatsuushi Formation was examined by three methods. Detrital zircon grains are separated from turbidite sandstone and a U-Pb age of 27.2 ± 0.1 Ma is obtained by the LA-ICP-MS method. Dinoflagellate cysts indicate late Oligocene and early Miocene, respectively. Therefore, the U-Pb age is shown as the depositional age of this formation. The depositional age of the Hidaka Supergroup has been reported Paleocene to Early Eocene so far. Therefore, it is difficult to include this formation in Hidaka Supergroup. The Tatsuushi Formation can be compared to the Erimo Formation in the southern Hidaka Belt (Kurita and Kusunoki, 1997) and the lower part of the Tsubetsu and Kawakami Groups based on their depositional ages and affinity of the lithology (Kurita et al., 1998) distributed along the Abashiri tectonic line as the right-lateral strike-slip fault since late Oligocene. These siliceous mudstones may have been formed by the upwelling flow caused by the bottom deepwater brought from the Sea of Okhotsk by the opening of the Kuril basin.

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(References) Kurita and Kusunoki, 1997, *Jour. Geol. Soc. Japan*, 103, 1179-1182. Kurita et al., 1998, *Research reports of JAPEX Research Center*, no. 13, 11-31. Tajika and Iwata, 1994, *Chikyu monthly*, 16, 495-499.

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