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Diatom analysis on the late Pleistocene Takano Formation, Nagano, Japan

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Diatom analysis has been performed at a 0.5 m interval for a sediment core of 53.88 m length from the late Pleistocene Takano Formation. According to the age-model proposed by Tawara et al. (2006), this core can covers from 170 ka to 40 ka in age and analysis interval correspond to about 1500 years.

From 170 ka to 140 ka, benthoic diatoms such as *Achnanthes* spp. and *Staurosira* spp. are dominant, and diatom abundance is very low (lower than 1.0×10^8valves/g). After 140 ka, planktonic diatoms such as *Cyclotella radiosa*, *Aulacoseira ambigua*, *Cyclotella stelligera*, *Aulacoseira alpigena* are dominant. From 140 ka to 130 ka, *C. radiosa* is dominant, and diatom abundance is low (1.6 - 6.9×10^8 valves/g). From 130 ka to 115 ka, *Aul. alpigena* is dominant, and diatom abundance is high (over 10×10^8 valves/g). From 115 ka to 100 ka, *C. stelligera* is dominant, and diatom abundance varies largely (0.1 - 38.2×10^8 valves/g). From 100 ka to 70 ka, *C. radiosa* is dominant, and diatom abundance is abundant, between 3.2×10^8 valves/g and 56×10^8 valves/g. From 70 ka to 40 ka, *C. radiosa* and *Aul. alpigena* are dominant, and diatom abundance is low, fluctuating a little between 0.9×10^8 valves/g and 20×10^8 valves/g.

These results are compared with the diatoms analysis of the sediment cores from Lake Biwa. After 140 ka, planktonic diatoms are dominant in the Takano Formation, and the diatom assemblage changes synchronously between Takano Formation and Lake Biwa.