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## Sequential changes in valve size distribution of planktonic diatoms from Hiruzenbara Formation, Okayama

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Fossil freshwater planktonic diatoms from laminated diatomite in Middle Pleistocene Hiruzenbara Formation were observed. Stephanodiscus komoroensis was abundantly observed mainly in light-colored laminae and Puncticulata sp. was dominated in dark-colored laminae. Former occurred through the 20-m thick section but latter did not occur from uppermost 2-m thick section. Abundance of S. komoroensis is smaller than 10 % in the section with Puncticulata sp. and quickly increased to almost 100 % occurrence in the section without Puncticulata sp. Valve size distribution of S. komoroensis sequentially changed: large size (80-100 micro-m in diameter) dominated in the section with abundant Puncticulata sp.: dominant size range shifted to 100-120 micro-m in the section just beneath that without Puncticulata sp.: small size (40-60 micro-m in diameter or less) occurred more than 30 % in the section without Puncticulata sp. Our results of species composition and their size distribution generally coincident with previous studies and give insight to competition between planktonic diatom species.

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Keywords: diatom, valve size, Hiruzenbara Formation, lacustrine deposit, laminated diatomite