

Sedimentation of biogenic and abiogenic components on the Shatsky Rise in the western North Pacific during the late Pleistocene

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Middle latitude area of the western North Pacific is sensitive for climatic changes. Biogenic components and inorganic elements sedimentation were studied using sediment cores from the Shatsky Rise in order to verify the fluctuation of biogenic sedimentation and the related vertical transport of inorganic elements. These results suggest that the transition zone might be narrower in latitude during glacials. Inorganic elements are divided into four groups based on correlation between each element in content: 1) terrigenous components, 2) biogenic calcareous material, 3) biogenic-scavenged elements, and 4) the other elements. Of these elements, especially Be sedimentation could be accelerated by both enhanced terrigenous input and biogenic vertical transport in response to climatic change.