GENERAL CAUSE FOR THE STRATIGRAPHIC PECULIARITIES OF THE CLARION-CLIPPERTON ZONE (THE EAST EQUATORIAL PACIFIC)

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Micropaleontological investigations in two survey areas show that Tertiary outcrops are distributed on the bottom surface or under a thin layer of Quaternary sediments. The continuous sequence of radiolarian biostratigraphic zones from the Late Eocene to the Early Miocene (40-17 million years) and the regional hiatus between 17 and 1 million years were revealed. Abundant manganese nodules occur on the bottom mainly on the surface of Quaternary sediments covering the Tertiary deposits of various ages. The age of radiolaria assemblages from the nodules is mainly Oligocene. Consequently, older nodules occur on younger deposits. Redeposited radiolarians of Middle-Late Miocene, and Pliocene are present neither in the ancient clay, nor in the manganese crust on the Oligocene clay, nor in Quaternary deposits. It is supposed that these Neogene sediments were eroded and washed away by the near-bottom currents in the Quaternary beginning from 0.9-0.7 million years ago. The erosion of Tertiary deposits by near-bottom currents could be intensified by an effect of strong earthquakes in tectonically active zones which can be affective within several thousands of kilometers. In watersaturated nonconsolidated medium of the ocean bottom the superficial seismic Love and Rayleigh waves should be distributed which can cause a vibration effect. The seismic vibration effect on the surface sediment layer must disintegrate and stir up sediments which are then carried away by the bottom current. Large-size components of the sediment including manganese nodules cannot be carried out by the current and form residual deposits. The same vibration effect causes ancient nodules to float up onto the surface of the Quaternary sediments. Thus, this hypothesis suggest one and the same reason for the peculiarities of the Clarion-Clipperton zone, that is, the regional stratigraphic hiatus, the formation of the residual nodule fields, and floating up of ancient nodules to the surface of the Quaternary deposits.