

Depositional environment and Holocene terrace formation in the central part of Tateyama Plain, Boso Peninsula

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Southernmost part of Boso Peninsula is characterized by Holocene marine terraces, and many detailed studies have been done in relation to active seismic upheaval. However, in the Tateyama Plain area buried widely by the Holocene transgression and fluvial activity, the boundary between marine terraces is not clear and some fluvial terraces develop along the rivers.

Around the central part of Tateyama Plain, a higher marine terrace about 17-18 m above sea level (asl) is distributed, having a sandy bar topography on the top along the western side of the terrace.

There are good sections of the marine terrace near Kayano-Shinbashi, beside the river of Takikawa. One of these sections shows marine mud layers rich in molluscan shells such as *Dosinella penicillata*, *Pinnoidea* (Pinnacea) *Pinnidae* at the basal part about 5 m asl, which is overlain with muddy sand layers also rich in molluscan shell fragments with thickness of 5 to 6 m.

Calibrated radiocarbon age of 5640 ca.y.BP. is obtained from *Dosinella penicillata* of this layer. The lower marine mud layer is directly covered with a sandy layer, probably indicating an attack of tsunami event.

Dissecting the marine terrace and sand bar topography, narrow fluvial terraces are developed; from higher, 14m, 12m, 10m, 8m, and 5m asl.

Among these, an archeological site of the middle-Jomon Period distributes on the higher terrace of 14m asl, suggesting the emergence of the terrace from 5600 to 4500 ca.y.BP. Just beside of Takikawa, a gravel bed at nearly same level as the flood plain or the lowest terrace, including fragments of pottery which seem to be 6-7 century, and burnt soil. Cross lamination of gravel layer towards inland suggests an event such as tsunami.