

Evolution of the coastal plain and the environment during Holocene along Shiraoui-Mukawa coast, Hokkaido, Japan

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Shiraoui-Mukawa coastal plain in Hokkaido faces Pacific Ocean in Japan. Shiraoui-Yufutsu coastal plain, the western half, developed as a strand coast system in the regression stage after the high sea-level stage (6ka) in Holocene (H. Moriwaki, 1982; Ikeda et al., 1995). Under the Shiraoui-Yufutsu coast, thick black sandy-gravels of marine gravel bar are buried, whose gravels were supplied from the Hidaka coast of the central Hokkaido.

In Yufutsu coastal plain, many lines of sand ridges formed as a strand coast covered with sand dunes, and that time Shiraoui plain was covered with fluvial volcanoclastic deposits mainly from Tarumai volcano after the high sea-level stage in Holocene.

In order to clarify the supply process of black sandy-gravel in the Shiraoui-Yufutsu coast, it is necessary to understand the formational process of Mukawa coast plain. However, the condition of the Mukawa plain is very different, not the strand coast.

We obtained some radiocarbon data, molluscan and diatom fossils from some boring cores and hand auger samples from the Mukawa coastal plain. Molluscan and diatom fossils show the Yufutsu-Mukawa plain was under the influence of marine water in 8ka-6ka. These suggest the inner bay or lagoonal environments were dominant during the high sea-level stage. Shiraoui-Mukawa coast probably has been in composite system under both of barrier and strand plain systems.