

Stratigraphic subdivision of the alluvium in alluvial plain with the barrier-lagoon system

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Echigo Plain is an alluvial plain, which represents the Sea of Japan side, and coastal sand dunes, which reaches about 70km, are developed. In the Echigo Plain, the barrier lagoon system is one of the fundamental components in the plain. In present alluvial plain, the similar landform environment is characteristic in the Japan Sea side. For example, Izumo and Matsue region, region from Hokuriku (especially Kahokugata) over Noto Peninsula, Joetsu, Kashiwazaki and Echigo Plain (Niigata), Shonai Plain (Yamagata), Akita region, Aomori (Jusan Lake) region. In these each area, it has been estimated with that the barrier lagoon system was approximately formed with Holocene maximum transgression. Contrastively, the region where the typical barrier lagoon system develops is rare for present alluvial plain in the Pacific Ocean side. In the examination on the stratigraphy of the alluvium, it is estimated that the definition is improved the stratigraphic classification of the alluvium like Nanagouchi Fm and Yurakucho Fm. In the plain of the type of the barrier lagoon system, in this work process, it is indicated that there are some problems in the different viewpoint.

The problem in subdividing the alluvium in Echigo Plain

The subdivision of alluvium is required that the geologic (sedimentological, stratigraphic) facts can be explaining the formation process of the stratum and that it is appropriate for the engineering (for example, N value). The division of the stratigraphy is possible, if the sedimentary system and sequence stratigraphic division will agree some engineering soil property. However, the effect of the system in which accumulate the sediment which completely differs in inside and outside of the barrier is very large in Echigo Plain. The examination of division method for being appropriate for engineering and geology is a problem on the alluvial plain with the barrier lagoon system.