

Sedimentary analysis of marine terrace deposits an example for Takadate terrace deposit during MIS 5e in Kamikita Plain

Yoshiharu Yokoyama[1]; Futoshi Nanayama[2]; Takuichiro Kuwabara[3]

[1] Dept. of Earth Sciences, Graduate School of Waseda Univ.; [2] MRE, GSJ/AIST; [3] Active Fault Research Center, GSJ/AIST

In this preliminary study, we tried to understand about formation process of marine terraces by Sedimentological method. The Kamikita coastal plain is situated on the Pacific coast of Northeastern Japan and belongs to the outer belt of Northeast Japan arc. Marine terraces are fairly well developed on this plain. These terraces are extensively covered with tephras derived mainly Towada and Hakkoda volcanoes on the Ou backbone range. According to geomorphological and tephrochronological methods, the marine terraces are classified into at least four levels, i.e., Higher, Shichihyaku, Tengutai and Takadate surface in descending order. The topographical features and terrace-making deposits of the four marine surfaces show that each surface was formed during different periods of transgression. Takadate surface, the most well-preserved one among them, is estimated to have been formed at the culmination of the last interglacial stage (MIS 5e) from its topographical features, terrace-making deposits and the oldest ages of tephra overlying it. However, there was no study about relationships between formation process of marine terraces and sedimentation of terrace-making deposits controlled by glacial eustacy. So, we tried to study about formation process of marine terraces by Sedimentological method for terrace-making deposits of Takadate surface in the Kamikita coastal plain.