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Regional characteristics of river long profile development in mountain areas, Japan since the Last Glacial Period

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Longitudinal river profile is one of the most important geomorphic elements indicating river transportational systems, which changes in response to climate change. As the result, river terraces are developed. Therefore, quantitative researches of river longitudinal profile should be examined to clarify the response of rivers to climate change. River terrace development in the latter half of the last glacial period is different between East and West Japan. Investigating the factor that produced those differences is important to estimate river changes that may occur in the future. In addition, previous studies have clarified river landform changes in individual rivers since the last glacial period, but there are few quantitative studies that focus on rivers all over Japan. This study tries to clarify the long-term river landform changes and at the same time shed light on each region's characteristics by comparing river longitudinal profiles in different areas in Japan. The investigators compared between the Last Glacial River Profile defined by the continuity fluvial terrace surface formed since the Last Glacial Period and the Present River Profile. River longitudinal profiles were fitted with one of the exponential, power or linear functions. Discussion regarding the conformity function type used for evaluating the rivers in East and West Japan will be shown in the next poster session.

Keywords: river longitudinal profile, fluvial terrace, climate change, fluvial system