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Tectonic landforms and active structures of the Yokote Basin, northeast Japan

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We found some deformed fluvial terraces in the eastern margin of the Yokote Basin on the basis of precise geomorphic interpretations using large scale aerial photographs. Newly mapped active faults in the northern part of the basin indicate that we should reexamine the trace of the surface ruptures associated with the 1896 Rikuu Earthquake and the active fault structures fringing the eastern margin of the basin. In the southern part of the basin, some dextral active faults are dominant. The characteristics of fault traces and gravity anomalies suggest a quite different picture from that of northern part for basin development. Careful geomorphic interpretations are very useful for reconstruction of more reliable long-term risk evaluation of earthquake. In order to understand the natures of tectonic development, geomorphic investigations are inevitable.

Keywords: fluvial terrace, fault topograph, active fault, fault structure, Yokote basin