Tectonic geomorphology along the Oharako fault zone: an example of a long active fault in western Chugoku region, Japan

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In the western Chugoku district (Yamaguchi prefecture, western Hiroshima Prefecture, western Shimane Prefecture), it has been thought that distribution of active faults is very sparse. However, several active faults were newly mapped by several researchers in recent years. We have been mapped active faults in the whole area of the Chugoku District by detailed air photograph analysis during the last two years. As a result, we revealed that many active faults are densely distributed in this area. In this presentation, we report tectonic geomorphology along the Oharako Fault Zone as an example of such active faults, and discuss the characteristics of distribution pattern of this Fault Zone. Although distribution of active fault traces in our result is similar to those of the published data in large scale view, some active fault traces are mapped in different location and some active faults traces are newly mapped. Along the previously mapped active faults traces, many tectonic landforms (lateral offset streams, offset hills, beheaded stream, dammed stream, fault scarplet on fluvial terrace) are newly mapped. As a result, we clarified that the Oharako Fault Zone is an active fault system with 60 km in length, and that the Oharako Fault Zone have a capability of causing M7.8 earthquake.

Keywords: Oharako fault zone, active fault, western Chugoku region, inland earthquake, air photo interpretation