Active faults and their tectonic implication around northern margin of the Sanuki Range, Shikoku region, Japan

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The Sanuki Range is located in the northeast Shikoku region, and shows elongated shape trending east to west. Southern margin of the Sanuki Range is bounded by the Median Tectonic Line active fault system (MTL), and shows very linear form. Although the Nagao fault is developed along the central part of the northern margin of the Sanuki Range, its distribution is restricted to the central part of the Sanuki Range, and existence of active faults has not been known in the eastern and western extension of the Nagao fault. Based on detailed investigation of aerial photograph and stereoscopic images delivered from 5 m –10 m DEM, we found active faults in the east and west extension of the previous reported active faults. In this presentation, we reported the distribution and characteristics of these active faults, and discuss tectonic implications of these active faults. In the eastern extent of the Nagao fault, left lateral slip fault trending NW-SE and right lateral slip faults trending NE-SW are newly mapped. In one fault, north-side-up displacement is estimated. In the western extent of the Nagao fault, flexure scarps on terrace surfaces trending east-west are newly mapped over several kilometers. In the western side of above mentioned faults, a north-side-up fault known as Kamihogunji fault is distributed. This fault is extended to the east several kilometers by our survey. In the western part of the northern margin of the Sanuki Range, many strike slip faults are newly mapped. Right lateral slips are recognized at NE-SW trending faults, and left lateral slip are recognized at the NW-SE trending faults, respectively. All of these faults are short in length (less than several kilometers), and are distributed intermittently in hilly areas along the northern edge of the Sanuki Range.

Keywords: Sanuki Range, Nagao fault, Median Tectonic Line, active fault

