

Geologic structures and their activities around junction of main part and southern part of the active eastern boundary f

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A 130-km-long N-S trending active fold and thrust zone (eastern boundary fault zone of Ishikari lowland) occurs in the Ishikari lowland and off the Yufutsu plain. This fault system is one of the boundary faults between the Kuril arc and the Northeast Japan arc. This fault system consists of east-dipping thrusts accompanying with fault-related folds. This fault system is subdivided into two parts with gap and echelon arrangement around the Yufutsu plain. The main part is 72 km-long and its mean vertical displacement rate is larger than 0.4 m/ky since the late Pleistocene. The south part is 86-km-long and its mean vertical displacement rate is 0.2-0.3 m/ky since the late middle Pleistocene. The southern part of this fault zone includes discontinuous structures such as short-axis anticlines and short monocline in the terrestrial part. This discontinuity of geologic structure would be related to irregularity of basement rocks underlying the southern part of Ishikari Lowland.

Keywords: Eastern margin fault zone of Ishikari Lowland, fold and thrust belt, active fault, mean displacement rate, geographical information system