

Age and the tectonic displacement of fluvial terraces in the southern part of the Tonami Plain, Toyama Pref., central Japan

Yosuke Nakamura[1]

[1] Geophysics, Sci., Kyoto Univ

<http://www-crus.kugi.kyoto-u.ac.jp/crus/default.htm>

The Tonami Plain in western Toyama Prefecture, central Japan, is bounded by NNE- and NE-trending reverse faults. The purpose of this study is to investigate the formation age of the Late Quaternary fluvial terraces in the southern Tonami Plain.

Late Quaternary fluvial terraces in the southern Tonami Plain are divided into eight levels: Terraces 1 to 8. Terrace 3 is overlain by the Daisen-Kurayoshi tephra (46-48 ka) and Terrace 5 is overlain by Aira-Tanzawa tephra (22-24 ka).

The Takashozu and Hohrinji faults are accompanied with fault scarps several meters high on fluvial terraces.

The Tonami Plain in western Toyama Prefecture, central Japan, is bounded by NNE- and NE-trending reverse faults. The NNE-trending Takashozu fault is located along the northwestern margin of the Takashozu Mountains and East-Tonami Hills, whereas the NE-trending Hohrinji fault is located along the eastern margin of the Iohzen Mountains and Minami-Kanita Hills. The purpose of this study is to investigate the formation age of the Late Quaternary fluvial terraces in the southern Tonami Plain. The following conclusions are obtained by geographical, geological, and reflection surveys.

Late Quaternary fluvial terraces in the southern Tonami Plain are divided into eight levels: Terraces 1 to 8. Terrace 3 is overlain by the Daisen-Kurayoshi tephra (46-48 ka) and Terrace 5 is overlain by Aira-Tanzawa tephra (22-24 ka).

The Takashozu and Hohrinji faults are accompanied with fault scarps several meters high on fluvial terraces. At Yassui, northernmost of the Hohrinji fault, reverse faults were exposed by trench excavation. The Takashozu and Hohrinji faults are estimated to have been formed reverse faults under a stress field with almost E-W compression. The active trace along the Hohrinji fault has migrated basinward since at least 50 thousand years ago. The active trace along the Takashozu fault has also migrated basinward since at least 50 thousand years ago. The Takashozu fault is divided into two segments and the southern segment started basinward migration earlier than the northern segment.