

# Study of the paleoseismicity in the North-central part of the Atera fault system

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The Atera fault system that runs along the southwestern border of the Northern Japan Alps, about 70 km in length, is NW-SE and NNW-SSE strikes. This fault system has several left-lateral strike-slip faults with reverse dip-slip component. The system is divided into three parts by the activities and geometry of fault lines. Many scientists have carried out the trench investigation in everywhere. The trenching results show an average recurrence interval for large earthquakes. The intervals of southern part and the central part are 4200 years and 1800 years respectively (Toda et al., 1996). Some scientists have proposed the 1586 Tensho earthquake as the last event of the system (e.g. Toda et al., 1995). We have carried out the trench investigations of the Gero fault and Yugamine fault in North-central part. Then this study with previous studies consider the ages of large earthquakes in the North-central part of the system and a few recent events. In conclusion, remarkable ruptured events occurred before about 1000-1200 years and about 3600-3800 years. It is likely that faults in the North-central part had not remarkably ruptured at or around the last event.