

9世紀にアムールプレート東縁に沿って起きた
噴火・地震活動について

津久井雅志*・中野 俊**・齋藤公一滝***

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Eruptions and Earthquakes Occurred along Amurian Plate Eastern Margin in the 9th Century

Masashi TSUKUI*, Shun NAKANO** and Koichiro SAITO***

Based on geological and archaeological data as well as historic documents, we review eruptions and earthquakes which have occurred during the 9th century in central and east Japan.

The results reconfirm vigorous activities on Izu Arc, Izu-Oshima (~838 AD < N₃, N₂, N₁ < 886 AD), Niijima (~857 AD and 886 AD), Kozushima (838 AD), Miyakejima (832 AD and 850 AD), and at Fuji volcano (800 AD, 838 AD < < 864 AD, 864 AD) during the 9th century. Beside these events, a big eruption of Niigata Yakeyama volcano had likely occurred in 887 AD. Chokai volcano also erupted in 871 AD, and 810-823 AD. Collapse of Yatsugatake volcano took place in 887, probably invoked by a strong shock in 887.

In addition, earthquakes with a magnitude from 7 to 8 had taken place along the Itoigawa-Shizuoka active fault system (in 841 or 762 AD), Nagano fault system (887 AD), Echigo plains (863 AD), Shonai plains (850 AD), Akita plains (830 AD) and Nankai trough (887 AD).

As a result, we can point out a linkage of big eruptions and seismic activities in the 9th century over 800km long crossing Japan Arc. Geologically this seems to be a surface expression of East-West compression along eastern margin of Amurian Plate over 800km which was driven by the eastward motion of the plate. It is noteworthy to mention that the very similar volcanic and seismic activities have been occurring in the last 50 years to those happened in the ninth century, in their source areas and manners.

Key words: 9th century, eastern margin of Amurian plate, boundary between Northeast and Southwest Japan, linkage of eruption and earthquake, east-west compression

1. はじめに

著者らは、伊豆弧・富士山の地質調査と文書記録の再検討から、9世紀に起こった火山噴火がこれまでに知られていた以上に多かったことを明らかにした(津久井・他, 2006)。この地域の9世紀の噴火の頻度が高く、また噴火規模がそれぞれの火山の活動史上で最大級であったことから、9世紀の活動はより広範囲の特異なテクトニクスを反映している可能性がある、と考えた。この背景

を知るために、噴火・地震の文献調査を中部、関東、東北地方まで範囲を広げておこなったところ、新潟焼山・鳥海山の噴火、北八ヶ岳の山体崩壊のほか、強い地震が出羽・越後・信濃および南海トラフを連ねた800km以上におよぶいわゆる「アムールプレート東縁」に集中して9世紀ころに発生していたことが確かめられた。この結果を紹介するとともに、より分解能を上げて実証するための今後の課題を挙げた。

* 千葉大学大学院理学研究科

〒263-8522 千葉県千葉市稲毛区弥生町1-33
Chiba University, Graduate School of Science, 1-33,
Yayoi-cho, Inage-ku, Chiba-shi, Chiba, 263-8522 Japan

** 独立行政法人産業技術総合研究所地質調査総合センター

〒305-8567 茨城県つくば市東1-1-1 中央第7
Geological Survey of Japan, AIST, Tsukuba Central
7, Tsukuba, Ibaraki 305-8567, Japan

*** 千葉大学大学院自然科学研究科

〒263-8522 千葉県千葉市稲毛区弥生町1-33
Chiba University, Graduate School of Science and
Technology, 1-33, Yayoi-cho, Inage-ku, Chiba-shi,
Chiba, 263-8522, JapanCorresponding author: Masashi Tsukui
e-mail: tsukui@faculty.chiba-u.jp