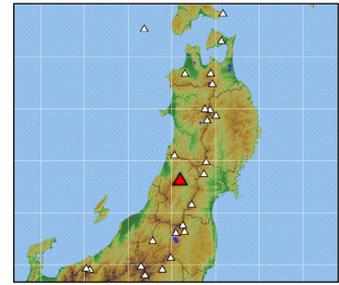


32. Hijiori

Latitude: 38°35'57" N, Longitude: 140°09'42" E, Elevation: 552 m (Sankakuyama)
(Elevation Point - measured by JMA)



Overview of Hijiori - Aerial Photo Taken from East Side - Courtesy of K. Yagi

Summary

Hijiori is located 20 km west of the Okura Village Mogami District, and Obanazawa City, in Yamagata Prefecture. It is approximately 15 km northeast of Gassan volcano, and approximately 50 km west-southwest of Naruko volcano. Hijiori is made up of a caldera with a relative height of approximately -0.2 km, with an internal diameter of approximately 2 km and an external diameter of approximately 3 km. A pyroclastic flow plateau (Sugimura, 1953) spreads several km to its south and approximately 8 km to its north. Hijiori is considered to have been active approximately 10,000 years ago (Ui et al., 1973; Miyagi, 2004). Currently, no fumarolic activity is observed, but ongoing geothermal activity is confirmed. Hot springs are located on the eastern edge and in the center of the caldera, and the lake deposits at the center have undergone a large amount of solfataric alteration. The SiO₂ content is 63.9 to 68.7 wt%.

Red Relief Image Map

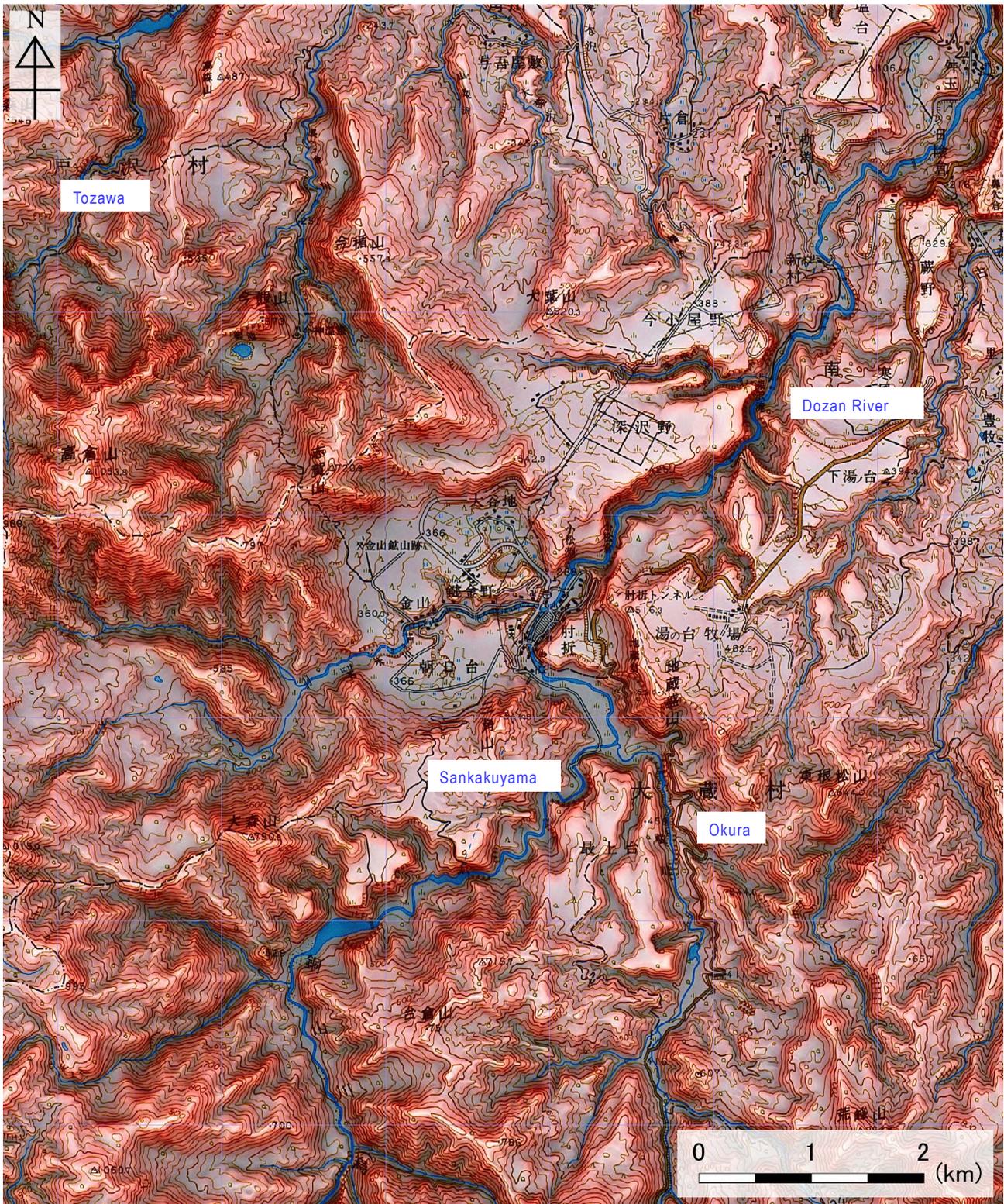


Figure 32-1 Topography of Hijiori
1:50,000 scale topographic map (Gassan) and digital map 50 m grid (elevation) published by the Geospatial Information Authority of Japan were used.

Chronology of Eruptions

▪ Volcanic Activity in the Past 10,000 Years

The Hijiori caldera was formed approximately 10,000 years ago, and later volcanic activity to leave the ejecta has not been confirmed (Miyagi, 2004).

Eruptive activity at Hijiori began approximately 12,000 years ago, and is considered to have ended in a relatively short period of time (Miyagi, 2004; Miyagi, 2007), but it is not known when its latest period of eruptive activity was. Murakami and Kawaguchi (1994) and Kawaguchi and Murakami (1994) have written that "Kankaneno air-fall pyroclastic material" covers the lake deposits inside the Hijiori caldera. This is considered to have been produced by the most recent eruptive activity, after the formation of the caldera, but Miyagi (2007) reports having been unable to detect these deposits.

▪ Historical Activity

There are no records of volcanic activity.

Recent Volcanic Activity

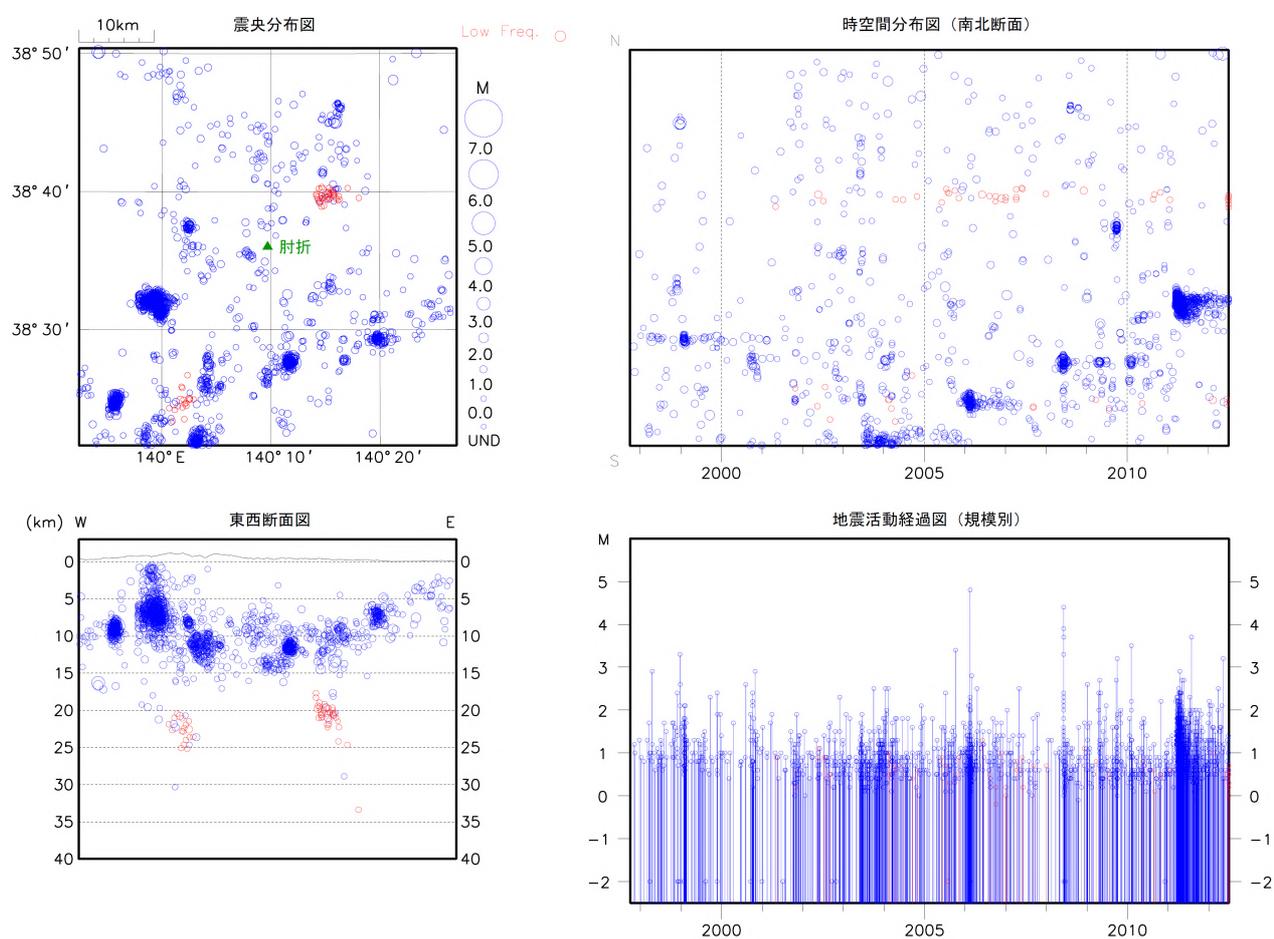


Figure 32-2 Activity of shallow VT earthquakes (blue circles) and deep low-frequency earthquakes (red circles) observed by a regional seismometer network (October 1, 1997, to June 30, 2012). Epicenter distribution (upper left), space-time plot (N-S cross-section) (upper right), E-W cross-section (lower left) and magnitude-time diagram (lower right).

Information on Disaster Prevention

① Hazard Map

None

Social Circumstances

① Populations

- Yamagata Prefecture - Okura: 3,725 (as of April 1, 2011)

(Based on population and number of households (estimated) of Yamagata Prefecture (monthly report))

② National Parks, Quasi-National Parks, Number of Climbers

No national or quasi-national parks

③ Facilities

None

Monitoring Network

Wide Area

* Monitoring sites with multiple observation instruments are indicated by small black dots, and other symbols indicate types of monitoring.



1:200,000 scale regional maps (Sakata, Murakami, Shinjo and Sendai) published by the Geospatial Information Authority of Japan were used.

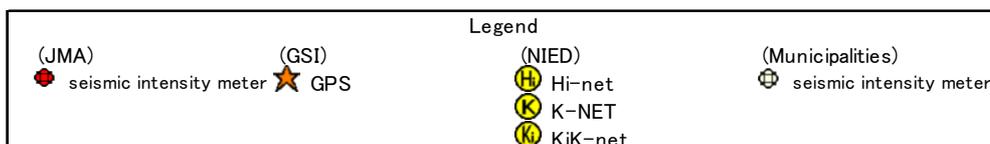


Figure 32-3 Regional monitoring network in a wide area.

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