51. Akandanayama

Latitude: 36°12'01" N, Longitude: 137°34'22" E, Elevation: 2,109 m (Akandanayama) (Triangulation Point - Akandana)





Overview of Akandanayama taken from the west side on October 19, 2003 by the Japan Meteorological Agency

Summary

Akandanayama is located to the northwest of Abo Pass, on the border between the prefectures of Nagano and Gifu. It is a stratovolcano composed of a lava dome, lava flow, and pyroclastic rock. The Shirataniyama volcano, the active Yakedake volcano, and the Yakedake volcano group are located to its north. The volcanic activity at Akandanayama began with the formation of a lava dome which covered Shirataniyama, which ceased activity approximately 10,000 years ago, and the ejection of pyroclastic rock produced by the collapse of that lava dome. Afterwards, a landslide slid down the volcanic edifice around the summit to the southwest. The SiO₂ content of the volcano is 61.0 wt %.

Red Relief Image Map

See Yakedake

Chronology of Eruptions

Volcanic Activity in the Past 10,000 Years

The pyroclastic rock distributed below Akandanayama has been determined to be approximately 12,000 years old, and the lake deposit sediments of Abodaira, retained by the somma lava emitted from Akandanayama, have been determined to be between 9,500 to 10,000 years. This indicates that the somma lava was emitted roughly 10,000 years ago. A lava dome, forming the summit at which the current triangulation point is located, was formed, though the period of this activity is not known (Oikawa et al., 2000).

Period	Area of Activity	Eruption Type	Main Phenomena / Volume of Magma
11.6←→11.2 ka	Akandanayama	Magmatic eruption	Akandana pyroclastic rock eruption: Pyroclastic material.
11.6←→11.2 ka	Akandanayama	Magmatic eruption	1909m peak lava eruption: Lava flow.
11.6←→11.2 ka	Akandanayama	Magmatic eruption	Abodani lava eruption: Lava flow.
11.6←→7.3 ka	Akandanayama	Magmatic eruption	Abo Pass lava eruption: Lava flow.
11.6←→2.3 ka	Akandanayama	Magmatic eruption	Akandana dome lava eruption: Lava dome.

* Volcanic periods, areas of activity, and eruption types taken from the Active Volcano Database of Japan, AIST (Kudo and Hoshizumi, 2006). All years are noted in Western date notation. "ka" within the table indicates "1000 years ago", with the year 2000 set as 0 ka.

 $A \leftarrow \rightarrow B$: Eruption events taking place at some point between year A and year B

Historical Activity

There are no records of volcanic activity.



Recent Volcanic Activity

Figure 51-1 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 (by scale) (lower right).

Information on Disaster Prevention

① Hazard Map None

None

Social Circumstances

$\textcircled{}{} \mathsf{O}\mathsf{Populations}$

Matsumoto City: 243,472 (1,846 in Azumi area)

(as of October 1, 2011 (Heisei 23) - according to results of the Nagano Prefecture monthly population movement survey)

Takayama City: 93,666 (1,489 in Okuhida Onsen Spa area)

According to "Overall Population by Administrative Area (by Neighborhood)" Takayama government data ②National Parks, Quasi-National Parks, Number of Climbers

· Nagano Prefecture:

Number of sightseers per year unknown

Number of mountain-climbers per year unknown

Gifu Prefecture: Chubu-Sangaku National Park - Hotaka Mountain Range

Number of sightseers per year: Approximately 661,000 (in Okuhida Onsen Spa area)

From Gifu Prefecture "Number of Visitors by Sightseeing Location in 2010, Tabulated by City"

Number of mountain-climbers per year: Unknown (no climbing trails)

3Facilities

None

Monitoring Network

See Yakedake

Bibliography

Harayama, S. (1991): Geology of the Kamikochi District. Quadrangle Series, Scale 1:50,000, 10Kanazawa, **45**, **175**, 1sheet, Geological Survey of Japan (in Japanese with English abstract).

Kawachi, S. and Mimura, K. (1988): Bull. Geol. Surv. Japan, 39, 601-606 (in Japanese with English abstract).

Oikawa, T., et al. (2000): Earth Science (Chikyu Kagaku)., 54, 191-195 (in Japanese).

Oikawa, T. (2002): J. Geol. Soc. Japan, 108, 615-632 (in Japanese with English abstract).

(Miyake, Y.)