

Where is the northern limit of the caldera, and what type of magma activity has occurred in the southern Hyogo Prefecture

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The authors suffered flood by the flood of the first grade river Kakogawa flowing in the southern Hyogo Prefecture. We have continued research to elucidate the cause from 2014. We conducted an outcrop survey along the Kakogawa - Maruyama River, 30 km east - west x 90 kilometers north - south. In Nishiwaki city, the east - west direction and several fault groups orthogonal to it, are developing. Rhyolite tuff is southern in the fault group, and the north is andesitic tuff, and the strike also differs by nearly 90 °. The rhyolitic tuff spreading in the Kakogawa watershed accompanies multiple intrusive rocks of andesite. These results indicate that the northern limit of the caldera is in Nishiwaki city. A natural embankment formed by the penetration of rigid andesite into the soft tuff which is widely distributed in the Kakogawa basin is the cause of the flood.

Keywords: caldera, rhyolitic tuff, intrusion of andesite, fault group



