

Magma chamber associated with BC 3400 caldera-forming eruption (the Numazawako eruption) at Numazawa volcano, NE Japan.

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The BC 3400 caldera-forming Numazawako eruption at Numazawa volcano, NE Japan, produced four eruption units; in ascending order, these are the voluminous, pyroclastic flow unit (Unit I; ~90 % of the magma erupted during the Numazawako eruption deposited as the Unit I), the plinian pumice-fall unit (Unit II), the pyroclastic surge unit (Unit III), and the final plinian scoria-fall unit (Unit IV). The eruption initially tapped relatively homogeneous dacite magma (with a small amount of black scoria-forming andesitic magma) that was erupted between Unit I and III. The final stage of eruption (Unit IV) tapped a second andesite magma (gray scoria-forming andesitic magma), which was probably injected into the bottom of the main magma body as the eruption proceeded. The high magma discharge condition was restored by the replenishment of the second andesitic magma and a plinian column with associated scoria fallout (Unit IV) began anew.