

Recent volcanic activity and its magma system of Tyatya volcano, southwestern Kurile arc

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Recent magmatic activity of Tyatya volcano has occurred at the central cone in the summit small caldera from >1 ka to 1812 AD followed by flank eruption in 1973. During the summit eruptions, strombolian and/or sub-plinian eruptions have repeated probably with several tens years intervals and effused at least 13 lava flows. In contrast, sub-plinian eruptions occurred at northern and southern flank in 1973 and dispersed scoria and ash widely. Although all the eruptive materials are basaltic, petrographic features and chemical compositions of rocks are different between the summit and flank eruptions. This suggests that the magma plumbing system had been changed during last 160 years.