

Distribution survey for the submarine part of the 1640 debris avalanche deposit from Hokkaido-Komagatake volcano

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A sector collapse occurred and entered into sea, which subsequently produced tsunami waves, on the first stage of the activity of the 1640 eruption of Hokkaido-Komagatake volcano.

In order to determine the distribution of the debris avalanche deposit, survey of the submarine topography near the coast of Shikabe was done. Depth and topography was measured using a sounding machine and a side-scan sonar. As a result of this investigation, obvious hummocky topography was observed. The number of hummocks decreases with distance. In distal, the debris avalanche deposit has a distal cliff and a double-headed distribution. The deposit is distributed up to 19 km from source and 15 km wide. Estimated area of the deposit in the sea is ca. 100 km² and estimated total area of the deposit is ca. 150 km².