

Analysis of the geological structure of Shirasawa Caldera~What happened in Palaeo-Sendai Lake~

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In western Sendai, a caldera called Shirasawa Caldera existed about eight to six million years ago. Inside the caldera was a caldera lake called Palaeo-Sendai Lake and the Shirasawa formation was deposited on the bottom. We analyzed the geological formation of the Shirasawa formation based on the analysis of the outcrops. We elucidated domed structure developed in this area by measuring strike-dip of geological formation widely. Also, we found an outcrop that has sedimentary rocks inside the tuff. These sedimentary rocks are most likely to have taken in when it was semi-solid or unconsolidated. We estimated that the domed structure was formed by rising magma caused by caldera's volcanic activity. We also estimated that the tuff containing sedimentary rocks was deposited by underwater mudflow or debris flow resulting from phreatic eruption.

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