

## Research of Geological Structure and Geological History of Western Sendai -Based on Diatom Fossils and Field Surveys-

\*Kenta Morone<sup>1</sup>

1. Miyagi Prefecture Sendai Daisan High School

In Northeast Japan, researches related to geothermal development have reported the existence of many calderas that were formed after the Late Miocene. This study aims to infer the geological structure and geological history of calderas from field surveys and diatom fossil analysis, and to elucidate the tectonic development history of Northeast Japan located in plate convergent boundary. Based on the results of the field survey, I created a 1:25,000 scale geological map of the Aoshita- and Mamesawa-river basins prepared, adding the new finding that the Otemon- and Hikage-formations are connected by a normal fault. In addition, diatom fossil analysis revealed freshwater diatom fossils in the marine Hikage Formation, suggesting the possibility that a terrestrial environment with freshwater creature's habitats existed in northeastern Japan, which at that time was mainly marine.

Keywords: Caldera, Diatom, Northeastern Japan

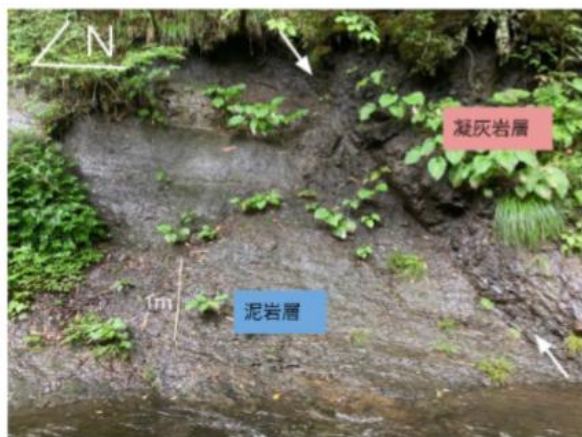


Fig.1 豆沢川で発見した断層

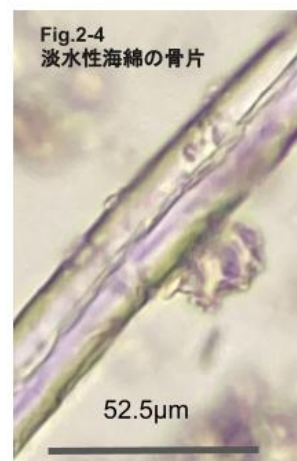
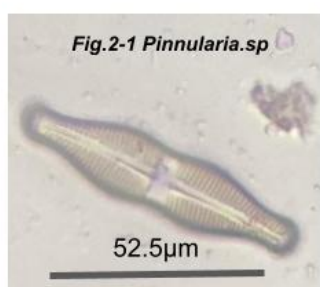


Fig.2 日蔭層の堆積岩サンプルから産出した化石