

## Preliminary report on paleotsunami deposits survey in Higashidori Village, Aomori Prefecture, northern Japan

TANIGAWA, Koichiro<sup>1\*</sup>, SAWAI, YUKI<sup>1</sup>, SHISHIKURA, Masanobu<sup>1</sup>, NAMEGAYA, Yuichi<sup>1</sup>

<sup>1</sup>Geological Survey of Japan

The rupture area of the 2011 off the Pacific coast of Tohoku Earthquake covers approximately 400 km in length along Japan Trench, and this earthquake raised concerns about future large earthquakes in the north (offshore northern Sanriku) and south (offshore Boso) of the rupture area by changes in balance of stress (Simons et al., 2011). However, there are few historical and geological records to evaluate long-term earthquake history around north and south of Japan Trench. From this perspective, we began geological study of paleotsunami in the Shimokita Peninsula, facing around the boundary between Kuril Trench and Japan Trench.

We found at least three wide-spread sand sheets beneath a narrow valley in Higashidori. The sand sheets are medium to coarse, quartz-rich, and interbedded with clay, peaty clay, or peat. One of the sand sheets was found above a historical volcanic ash B-Tm, of which age shows 10th century. Radiocarbon ages from plant macrofossils just below the sand sheet range 1460-1650 AD and 1480-1650 AD. The other deeper sand sheets were found 200-240 cm and 250-300 cm in depth of the core, but we have not obtained ages yet.

### Reference cited;

Simons et al. 2011. The 2011 magnitude 9.0 Tohoku-Oki Earthquake: Mosaicking the megathrust from seconds to centuries. *Science* 332, 1421-1425, doi: 10.1126/science.1206731.

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