

## Backshore deposits inferred as being formed by the 2011 off the Pacific Coast of Tohoku Earthquake Tsunami at the Tsuris

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Tsunami deposits are important evidences of paleo-tsunami and paleo-earthquake. However, studied on tsunami deposits around the shoreline have not been reported frequently, because it is believed that tsunamis generally erode coastal topographies. We investigated beach deposits at the Turishihama Beach, Shinchi Town, Fukushima Prefecture on July 17, 2011. We found the deposits, which are inferred as being formed by the 2011 off the Pacific Coast of Tohoku Earthquake Tsunami (2011 Tohoku Tsunami).

Survey at the Turishihama Beach had been carried out before the 2011 Tohoku tsunami on October 17, 2010. Comparing to before the 2011 Tohoku tsunami, backshore was thicker and flatter; the gradient of foreshore was higher. On the backshore, a 50 cm pit was excavated and backshore deposits were observed. The deposits composed granule to medium sand. A wedge shaped granule layer between 33 to 40 cm depths from the surface showed landward dipping (N45W, S12) on its top. The granule layer was overlain high-angle landward dipping sand-granule cross laminae layer. Although land shape of berm dips landward, its gradient is shallow than 10 degrees. Therefore, observed granule wedge and overlying sand-granule layers may have been formed unusual backshore environment, that is the 2011 Tohoku tsunami run-up. Further analyses are planned for elucidate depositional process and origin of these deposits.

Keywords: The 2011 off the Pacific Coast of Tohoku Earthquake, tsunami deposits, backshore