

Hunting mega-quakes -What we can and cannot find out from tsunami deposit-

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The giant tsunami of 2011 Tohoku was inundated into further inland and transported sand and mud from the coast. Such sand and mud are called tsunami deposit. Researchers have surveyed past tsunami deposits before the 2011 tsunami, and have revealed that the 869 Jogan tsunami had very large inundation in the Tohoku area. Because the inundation area was eventually almost similar between the 2011 and 869, studying past earthquakes and tsunamis (paleoseismology) came to be recognized in its importance for forecasting magnitude of tsunami. However finding out past phenomena beyond several thousand years is not easy. In this talk, I would like to introduce how to reconstruct the past earthquake and tsunami from historical records, tsunami deposits and coastal topography, including episode of field survey and relationship with society.

Keywords: great earthquake, tsunami, tsunami deposit, paleoseismology