

Disturbance of sea floor by large earthquake and formation of earthquake-induced event deposit: Where is a suitable location for deep-sea turbidite paleoseismology

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Surface sediment remobilization is a relatively new idea for generating earthquake-induced fine-grained turbidites. It is important for repeated deposition of fine-grained turbidite by every earthquake to deposit enough amounts of sediments, which are resuspend and redeposit by the next earthquake, on the slope. Remobilized sediment may move downslope gravitationally, and deposit in a depression at the base of slope. Sediment accumulation between earthquake events should be large enough for distinguishing each event deposits (fine-grained turbidites). Thus, the basin at the foot-of-slope with high sedimentation rate is a suitable location for deep-sea turbidite paleoseismology.

Keywords: turbidite, paleoseismology, surface sediment remobilization