

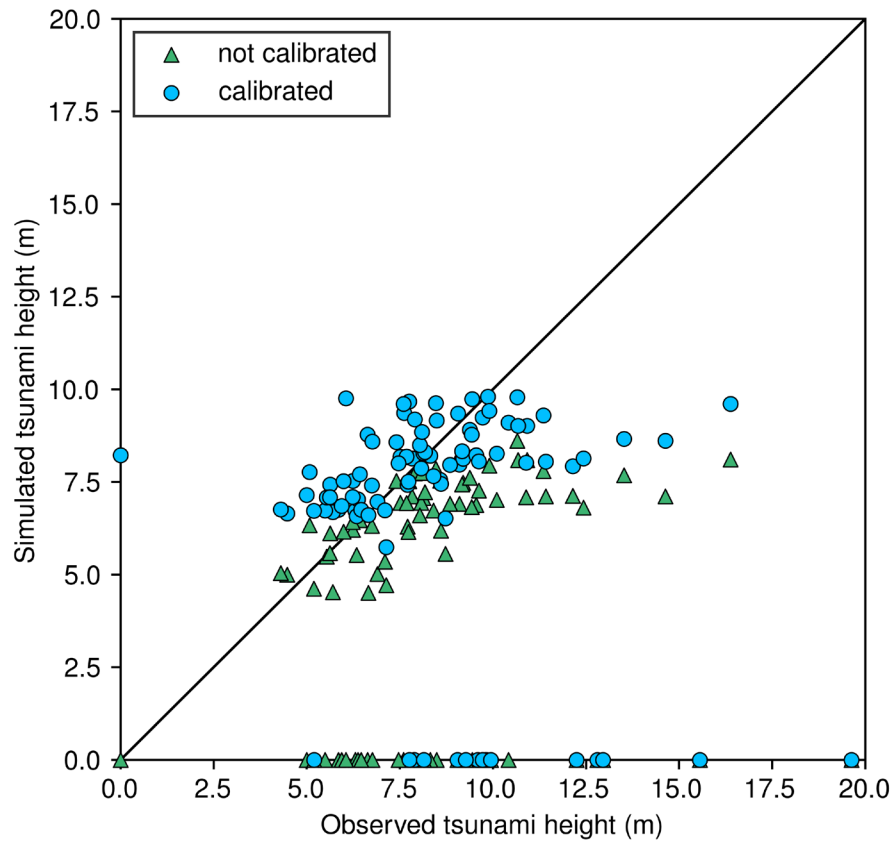


Fig. S1. Comparison of the scatter plot of the observed and simulated tsunami heights with and without the calibration of the boundary condition for the computational Domain R6. The original (not calibrated) tsunami source model is proposed by Sateke et al. (2013). Observational data were retrieved from Mori et al. (2012). The black line indicates a perfect agreement.

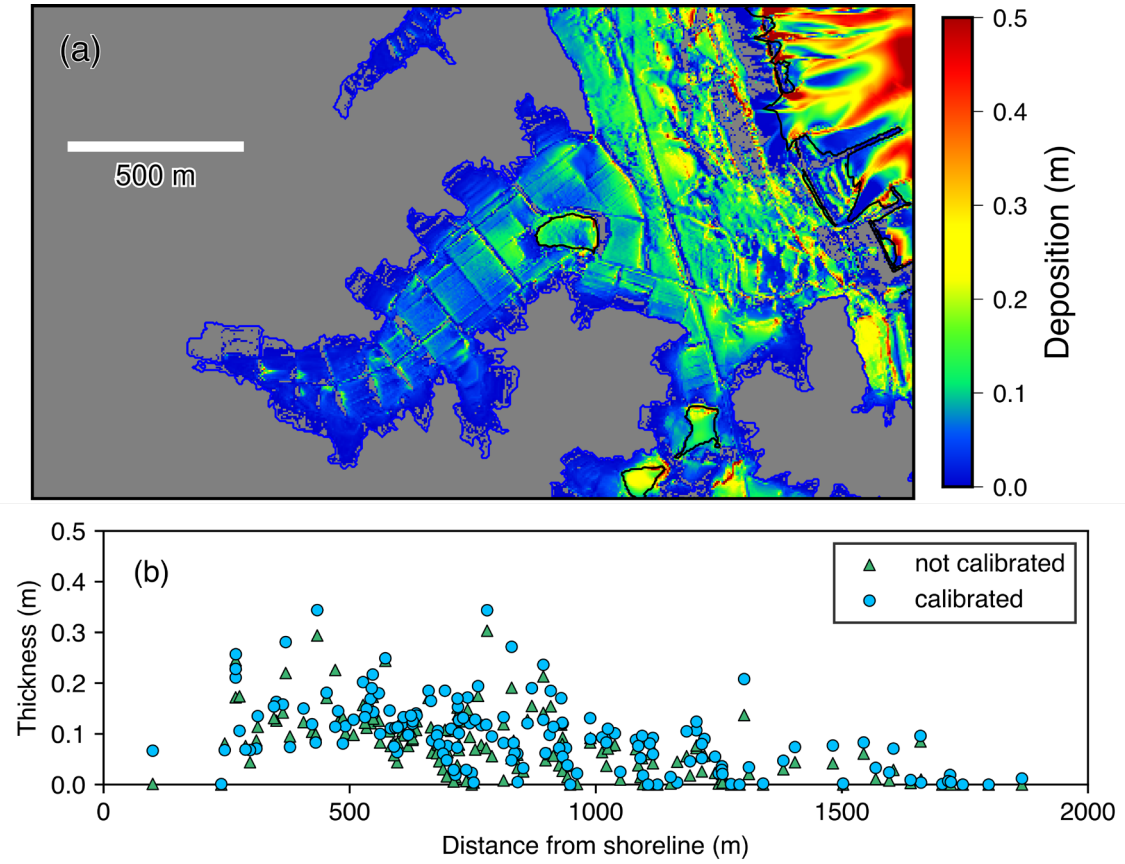


Fig. S2. Characteristics of the sedimentary results of the simulation using the source model of Satake et al. (2013) without considering the calibration of the boundary condition to the computational Domain R6. (a) Distribution of deposition. The blue line shows the limit of the simulated inundation area, which was narrower than that after calibration (Figure 2c). (b) Shore-normal distribution of deposit thickness with and without calibration. The thickness on most sites increased with the calibration.

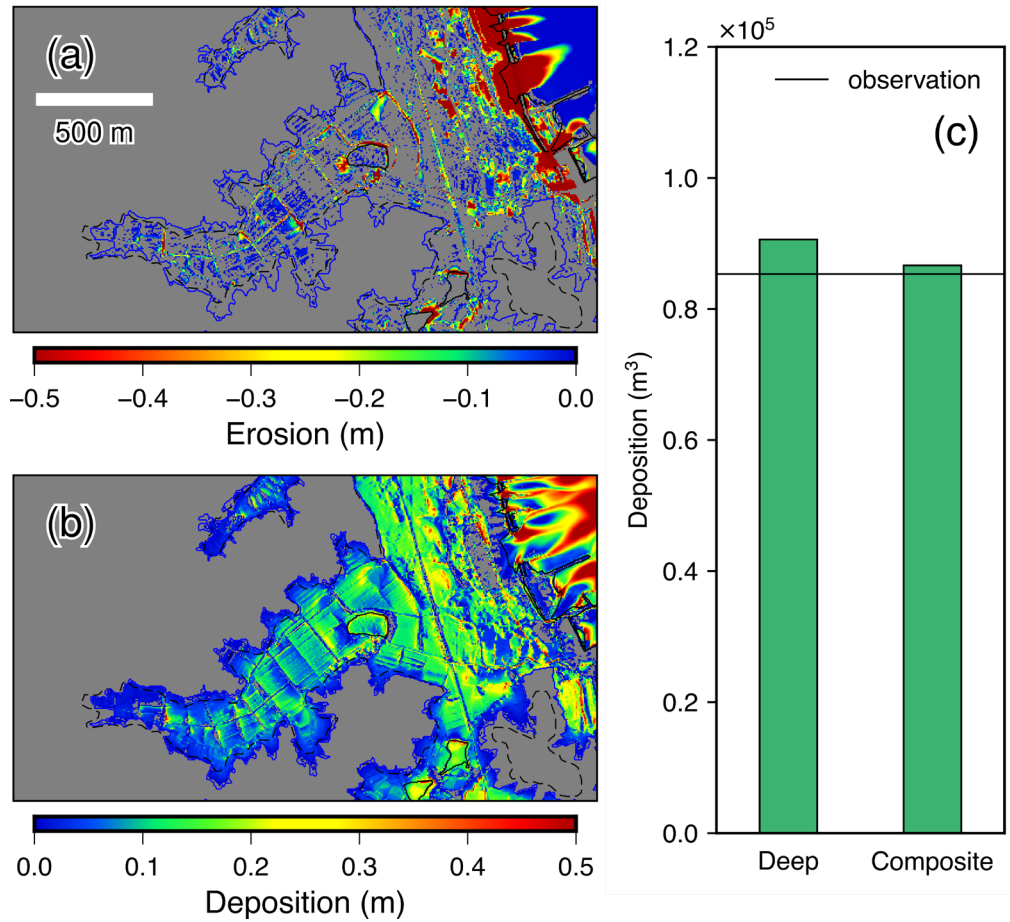


Fig. S3. Results of the sediment transport simulation using the deep slip model (subfaults on 2–4 columns defined in Satake et al. 2013; thick-framed subfaults in Fig. 10). (a) Distribution of erosion depth. (b) Distribution of deposition. Blue line represents the simulated inundation limit. Black dashed line represents the actual inundation limit reported by Haraguchi and Iwamatsu (2013). (c) Comparison of deposition volume. Even though there is no positive calibration of flux, the result from the deep slip model exceeds that from original model with the calibration (composite of deep and shallow slips).