

## Re-evaluation of the 1771 Meiwa tsunami source models using tsunami boulders at Ishigaki Island

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The 1771 Meiwa tsunami, which was generated on 24th of April 1771, was the extremely large tsunami event. It attacked to the Yaeyama and Miyako Island chains of Japan, and the tsunami killed more than 12,000 people. Several tsunami source models were proposed for this event. Nakata and Kawana (1995) assumed seismological fault models along the Ryukyu trench, whereas Hiraishi et al. (2001) and Imamura et al. (2001) assumed fault plus submarine landslide models. On the other hand, Nakamura (2006) assumed a NW-SE striking fault at the northeast of Ishigaki Island. Because of the insufficiencies of the historical description and geological data that indicate the inundation area and run-up heights, the source model is still controversial. In this study, we re-evaluated the tsunami source models based on the geological survey for the distribution of boulders at the south and east coast of Ishigaki Island, which were likely transported by the 1771 Meiwa tsunami as well as the numerical modeling of the tsunami inundation and transport of boulders. As a result, we found that the fault-submarine landslide model well explains the current distribution of boulders at Ishigaki Island.