Age estimation of Tsunami Deposits before Hakuhou Earthquake near the mouth of Ota River, Shizuoka prefecture

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We discovered that the four deposits found near the mouth of the Ota River in Shizuoka prefecture were not flood deposits from Old Ota River, but there are Tsunami deposits from the Hakuho earthquake (684), the Ninna earthquake (887), the Eithou earthquake (1096), and the Meiou earthquake (1498). Similar Tsunami deposits have been found at 100~150years intervals in the lowland of Ota River.
So, we took core samples to find older Tsunami deposits. As a result, we found an event deposit beneath the Hakuhou earthquake deposit. We compared the facies of this event deposits with that of the Tsunami deposits on the Ota River lowlands based on the post study (by Nakamura etal., 2014) by examining the compositional make up such as average size and mineral content of the two deposits. The composition of the event deposit corresponded with the results of the Tsunami deposit. From this result, we found this event deposits is Tsunami deposit.
Next, we estimated the age of this Tsunami deposit based on its sedimentation rate. It is believed to have accumulated around 340 B.C. Therefore, it is estimated that in the Yayoi era, there was a huge tsunami off the coast of the sea of the Enshu. So we named it ” Ota River-Yayoi era Tsunami” .

Keywords: Tsunami deposits, lowland of Ota River, Hakuho earthquake, Boring survey

