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Search for evidence of tsunamis on the east coast of Taiwan

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It is generally considered that the eastern coast of Taiwan has not been affected by tsunami, due to absence of tsunami records in the short, only 120 years, historical time. A legend of an Ami tribe says that strong waves have rushed toward the southern part of eastern coast several times, however. Place name of the Chenggong town is regarded to have been changed because of possible tsunami attack. We wish to confirm if tsunami really occurred on the eastern coast, by providing some geological evidence. We found by the hand-augering at two sites on the Holocene marine terrace at Chenggong town that marine shelly sand layer of ca. 1m thick overlies terrestrial peat layer. Radiocarbon age of the lower part of the peat is 3070-2860 Cal yBP, and upper part is 1810-1570 Cal yBP. Thus, we interpret that this area changed to marine environment from the terrestrial condition, at about 1600 yrs BP, probably due to the occurrence of tsunami. We further continue the excavation using geoslicer, to confirm the tsunami origin for the marine deposits.

Keywords: Tsunami, the east coast of Taiwan, Tsunami deposits, Chenggong, geoslicer