



## **Tsunami sediments in the Penghu islands and their implications to the surrounding areas**

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Several research groups have focused on the possible tsunami that would be induced by the slip of the Manila trench, western Pacific. To understand whether tsunami from South China Sea had reached Taiwan Strait, it is essential to investigate tsunami sediments in Taiwan, especially southwest Taiwan where many historical records and folklores indicated possible tsunamis. Located in the Taiwan Strait, Penghu islands are an archipelago made up mainly of Miocene basaltic rocks. The low-lying, low-relief islands have complex shorelines and are relatively low in anthropological disturbance, and these factors improve the preservation probability of the geological records. Because of the high preservation probability, we searched the islands for possible tsunami sediments in the hope of understanding the tsunami history in this region. Based on the field investigation, marine deposit are interbedded within the soil on the outcrop of sea terrace. These sites, such as Fongguei, and other coasts of Penghu islands, can be found at least one marine deposits which are interbedded within the paleosol in thickness of 1-3 meters. The result of AMS C-14 dating show the deposits are 6000, 3000 and 500 year before present. According to the inference of Holocene sea-level change in Penghu islands, these deposit events shall indicate the extreme events rather than high sea-level stand.