

Sedimentological and paleontological studies of storm surge deposits in intertidal mud floor -case study of Ena Bay on Miura Peninsula, Central Japan.

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Storm surges and tsunamis deposits provide essential information for disaster assessments of coastal lowlands in low- and middle-latitude regions and active margins. However, studying these coastal lowland strata is becoming increasingly difficult, particularly in residential regions, due to extensive anthropogenic disturbances. Consequently, the focus of research has had to extend to shallow marine deposits such as bay sediments, although few studies have examined storm surge deposits related to recent storm events. This study identified storm surge deposits within tidal flat sediments in Ena Bay, located in the southern coastal area of metropolitan Tokyo, Central Japan. Identification of the deposits was based on a comparison of surveys undertaken before and after Typhoon Lan (lowest pressure of 915 hPa), which struck the area on 23 October 2017. The results indicate that the storm surge deposits are limited to the supratidal and intertidal zones, demonstrating that the distal extent of sand beds deposited by storm surges is less than that of sand beds typically deposited by larger tsunamis.

Keywords: storm surges deposits, recent muddy tidal flat sediments, benthic foraminifer