



GEOLOGICAL IDENTIFICATION OF HISTORICAL TSUNAMIS IN THE GULF OF CORINTH, GREECE.

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The Gulf of Corinth is a tsunami prone area due to its high seismicity and the high sedimentation rate in combination with the steep bathymetry, which create favourable conditions for submarine landslide generation. The historical documentation of tsunamis in the Gulf of Corinth is one of the richest in the world and extends back to the 4th century BC. Two sites were selected to study the geological evidence left by past tsunamis. The Aliko site, situated on the south coast of the Gulf of Corinth, consists of a lagoon surrounded by saltmarshes and protected from the sea by a beach barrier. The second site, Kirra is a saltmarsh situated on the north coast on a flat, low-lying coastal plain formed by two rivers. Both areas are vulnerable to tsunami flooding due to their morphology and position. Furthermore, they are suitable for tsunami sediment preservation because of the low energy depositional environments. Using stratigraphical, sedimentological, microfossil analyses different episodes of marine flooding were identified in both sites. The detailed historical documents of tsunami flooding, available for the Gulf of Corinth were used as a reference system for the correlation of the time and place of occurrence of the geological identified events.