



## **Field geological evidence for an extreme sea wave event in western Algeria**

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Geological records of extreme sea wave events may be found in coastal areas as layered deposits, unusual deposits and/or boulders. These deposits may remain for hundreds or thousands of years in geological layers and/or in landscape and constitute evidence for historical or pre-historical extreme flood events that may serve, for instance, as geological materials for paleoseismic studies. We present in this work preliminary results of our field search, performed in coastal area of western Algeria, represented by unusual deposits trapped in down lying geomorphic location. Several arguments support a tsunami origin of the observed deposited materials: (i) The deposits are, clearly, draping a pre-existent landscape and showed a sudden deposition, (ii) Typical tsunami flood deposits including broken shells, and thick to thinner materials, from bottom to the top, (iii) Identification of seismites at the top of the deposits, (iv) presence of multi ton weight boulders, that needs high energy wave, in the rocky side of the area. Northern Algeria is a plate boundary zone where several offshore earthquakes have been occurred in the past and where historical data didn't extend back enough in time. Therefore, such data may help for more reliable seismic and coastal hazards assessments.