



PALEOSEISMIC PERSPECTIVES ALONG THE SOUTHERN BORDER OF THE ORAN (ALGERIA) QUATERNARY PLAIN

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The Oran region, in north-western Algeria, has been hit several times in the past by destructive moderate-sized and strong earthquakes. The Oran October 9th, 1790 (I₀= X) was among the strongest seismic events in the western Mediterranean area comparable, if we consider the described effects, to the El- Asnam (1980) and Zemmouri (2003) earthquakes. Such strong seismic events requires the presence of major active geological structures that are re-activated several times in the past.

In this work we undertake a multi- disciplinary study combining geomorphic analysis, field geological investigations and geophysical methods (ERT, Geo-radar, H/V, topographic profiles) to study the southern border of the Oran Quaternary plain. A 50 km long active fault which is trending NE-SW has been identified. Furthermore, a clear Quaternary deformation such as the tilted and faulted alluvial terraces with striations have been observed. The ERT resistivity contrast suggests that the fault dips 50° to the SW. Also, a promising sites for paleo-seismic trenching were identified.

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