

Seismic Sardinia: the historical earthquakes of an "earthquake-less" island

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Popular opinion holds Sardinia to be the only non-seismic region of Italy, a view with which many scientists would probably agree, with some qualifications. Historical earthquake catalogues, up to CPTI11, report only one Mw 5.1 event located in the Sea of Sardinia on November 13, 1948, with decidedly moderate ground effects. In recent decades the seismic networks recorded very few earthquakes of moderate energy ($M_w < 5$), mostly located at sea, either south-east of Cagliari or west of Olbia or in the Sea of Sardinia; the most recent ones occurred in 2000, 2004 and 2006 and had very slight effects in the mainland. In view of the low level of instrumental seismicity and of the limited relevance of the effects caused by the known historical earthquakes, the seismic hazard of the Sardinian area is extremely modest.

The scarcity of seismic activity in this region are certainly attributable to geological reasons as the Corsica-Sardinia block is one of the most stable areas of the whole Mediterranean basin.

However, as shown by recent research, the seismic history of Sardinia is has brought to light traces of earthquakes relatively known to the seismological tradition, but partially forgotten. In this paper we will review all the knowledge of seismic history of Sardinia, considering also the traces of a handful of half-forgotten events.

Particularly interesting is the June 4, 1616 southern Sardinia earthquake, responsible for slight but widespread damage to several watchtowers placed on the coastline south-west of Cagliari, in the Villasimius.