

# The harsh life of an earthquake in the region that doesn't exist

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Baratta's sources are respectively a summary of the *Bologna* Gazette published by De Rossi (1889) and a brief mention of Campobasso by Sarnelli (1716).

In the Postpischl (1985) catalogue, these pieces of information are summarized into an event dated generically to May 1712, located in Bojano, with an epicentral intensity of VIII MCS (Tab. 1).

	Year	Mo	Da	Ho	Mi	Lat	Lon	Int	Ref	Epic. Zone
POS85	1712	5		-	-	41 30	14 30	VIII	75	BOIANO
CPTI15	1712	05	08	-	-	41.561	14.660	6-7	AMGNNDT995	Campobasso

Tab. 1 – The earthquake of May 1712 in the catalogues by Postpischl (1985) and Rovida et al. (2022)

In the early 1990s, in the frame of the “Hazard Project” - that led to the compilation of various versions of the parametric catalogue, along with the in-depth study of many hundreds of medium-high-energy earthquakes - approximately 250 earthquakes were swiftly reviewed through a simple verification of seismological compilations. These revisions were then synthesized a few years ago in the data sheets called AMGNNDT995 [Macroseismic Archive GNDT, 1995].

The AMGNNDT995 data sheet dedicated to the 1712 earthquake considers various information not clearly attributable to a single event and downgrades the earthquake, dated May 8th, locating it in Campobasso with an epicentral intensity uncertain between VI and VII MCS. The study suggests that the assertion that houses and churches were 'ruined' refers to a level of moderate, non-structural damage. This interpretation has been incorporated into the CPTI catalogue in its various versions.

Recently, in the frame of a research project aimed at improving the preliminary AMGNNDT995 studies, the case of the 1712 earthquake has been reopened, following the report of the presence of the cult of San Michele in Ripalimosani, connected to the averted danger during an earthquake dated May 1712 [Mascia, 2000].

Along with this reference, attributed to an oral tradition, similar references have been identified respectively in Lucito and Monteodorisio. To verify this information and deepen the research, two avenues were pursued: the first, at the local level, aimed at verifying local historiography and archival evidence. Unfortunately, the research on this front has not progressed as it was hoped. The consultation of materials stored at the State Archive of Campobasso was unsuccessful. It was

impossible to examine the documents preserved at the Provincial Library "P. Albino", that has been closed to the public for several years due to technical and structural problems (it is still unclear if and when it will be reopened). The Diocesan Historical Library "V. Fusco" was also consulted, with negative results. Luckily enough, however, additional journalistic sources ([Gazzetta di] Bologna, 1712.05.24; 1712.06.14; [Avvisi di] Napoli, 1712.05.14; 1712.05.17; Il Corriere Ordinario, 1712.06.08) were found, which significantly enriched the information framework (Tab. 2).

Overall, this is certainly a very interesting and complex situation regarding a certainly important earthquake that affected a very large area of central Italy (Fig. 1).

Year	Mo	Da	Ho	Mi	Localities	Lat	Lon	Is
1712	05	08	04	30	Campobasso	41.561	14.660	7
1712	05	08	04	30	Avellino	40.914	14.793	6
1712	05	08	04	30	Benevento	41.131	14.778	6
1712	05	08	04	30	Piedimonte Matese	41.354	14.371	6
1712	05	08	04	30	Alife	41.328	14.331	6
1712	05	08	04	30	Napoli	40.849	14.25	4-5
1712	05	08	04	30	Piedimonte San Germano	41.496	13.749	3
1712	05	08	04	30	Chieti	42.352	14.168	HF
1712	05	08	04	30	Lucito	41.731	14.688	HF?
1712	05	08	04	30	Monteodorisio	42.086	14.652	HF?
1712	05	08	04	30	Ripalimosani	41.613	14.666	HF?

Tab. 2 – Intensity observed for the earthquake of 8 May 1712

This case, certainly not unique, is exemplary of a very broad research space that would require a long-term work plan today. The current Italian parametric catalogue, despite being among the most advanced in the world, contains many hundreds of earthquakes with extremely poor basic data, which should be completely reassessed. At the same time, data losses, informational gaps, and misunderstandings are always possible and would deserve work from a long-term perspective, a condition that today appears entirely illusory.

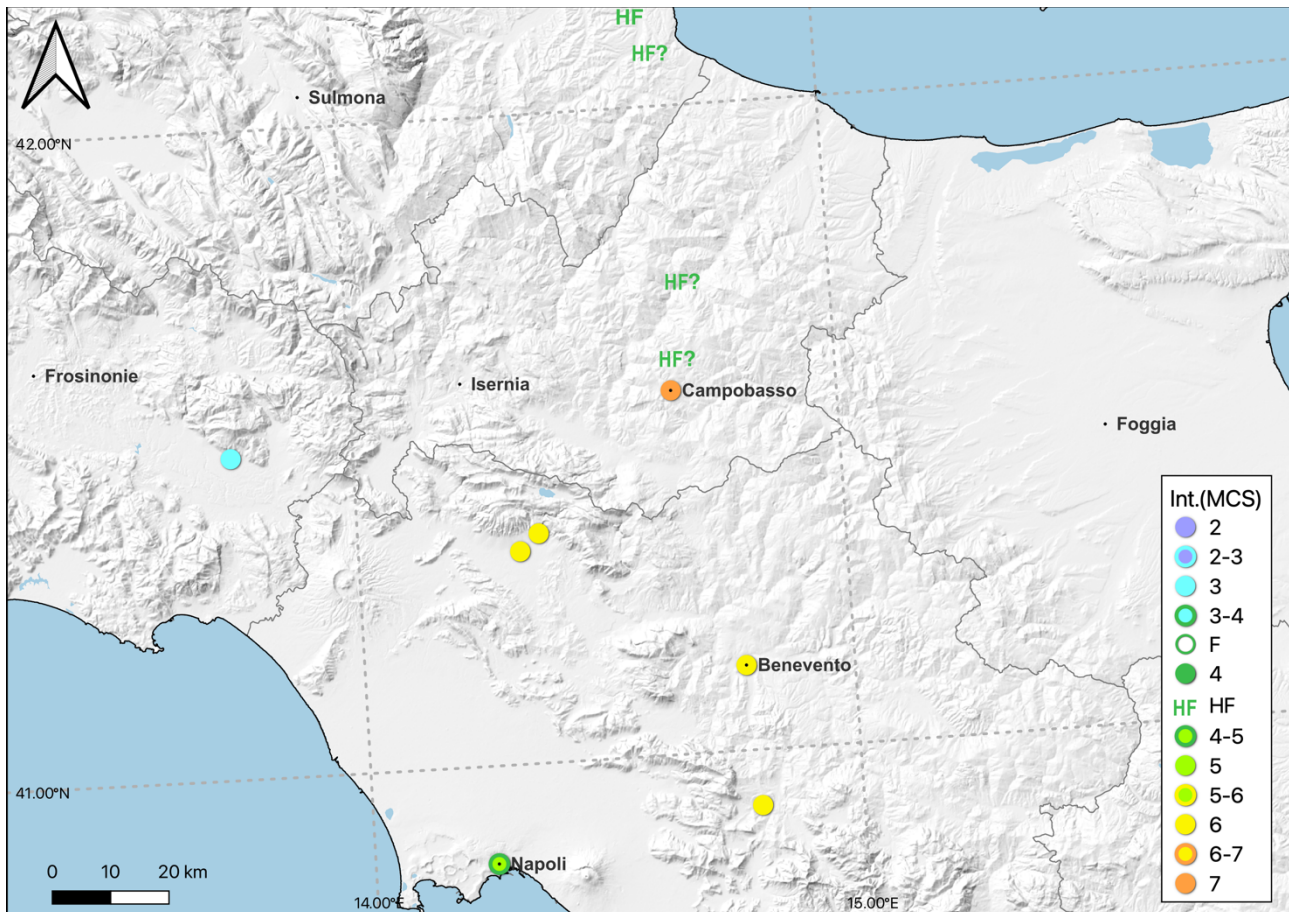


Fig. 1 – Distribution map of the distribution of the effects of the earthquake of 8 May 1712

## References

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