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Seismicity catalogue

Introduction

This study, published in 1999, constitutes the first volume of the 'Atles Sísmic de Catalunya', collecting on their different tomes the knowledge of the seismicity of the territory, the seismotectonic setting and an assessment of the regional seismic hazard and risk that must be considered for engineering purposes and for emergency plans.

The catalogue of seismicity is presented in this first volume, being a compilation of all the available data concerning earthquakes occurred in Catalonia and near areas, felt by the population since historic times.

The most relevant catalogues and studies realized up to now has been taken into account and a high degree of homogenisation and reliability of the presented data have been obtained. Data are presented on different ways: epicentral maps of the most damaging earthquakes in order to have a quick view of the distribution and importance of the occurred earthquakes; a list of the epicentral characteristics of all the earthquakes and 917 individual cards or forms describing each earthquake.

On the web page an abstract of the volume is showed, with maps and the list of the totality of earthquakes.

Epicenter maps

Map 1: Epicenters of damaging earthquakes

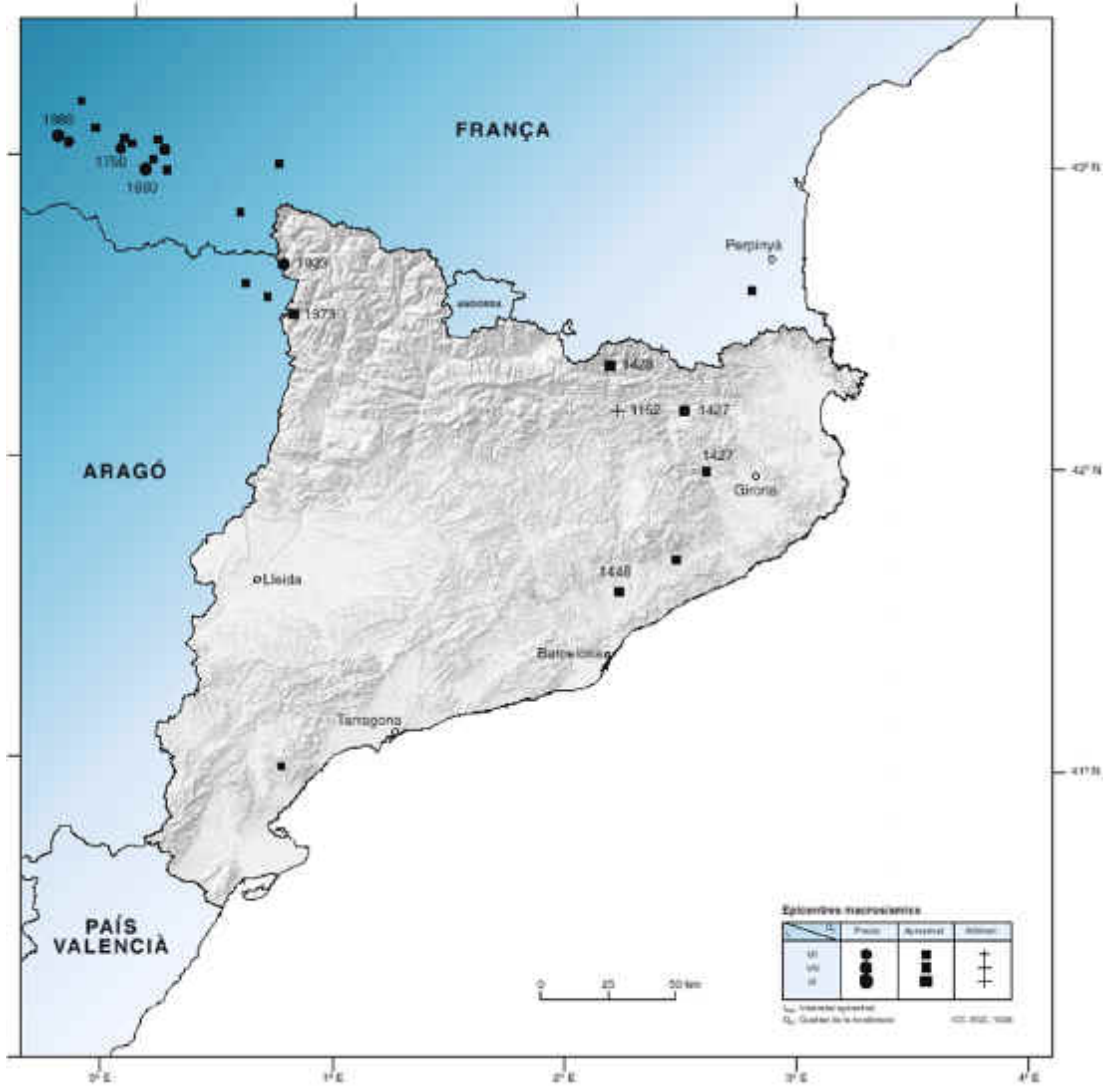
Epicenters of all known damaging earthquakes in the considered region from historical times to the present with $I_0 \geq VII$.

Different symbols are used to indicate their location precision (Q_e).

Size of symbols are related to epicentral intensity (I_0).

When the intensities are defined by two values (ex. VIII-IX) the size of the symbol corresponds to the low value (ex. VIII).

The year of the earthquake occurrence appears for epicentral intensities $I_0 \geq VIII$.



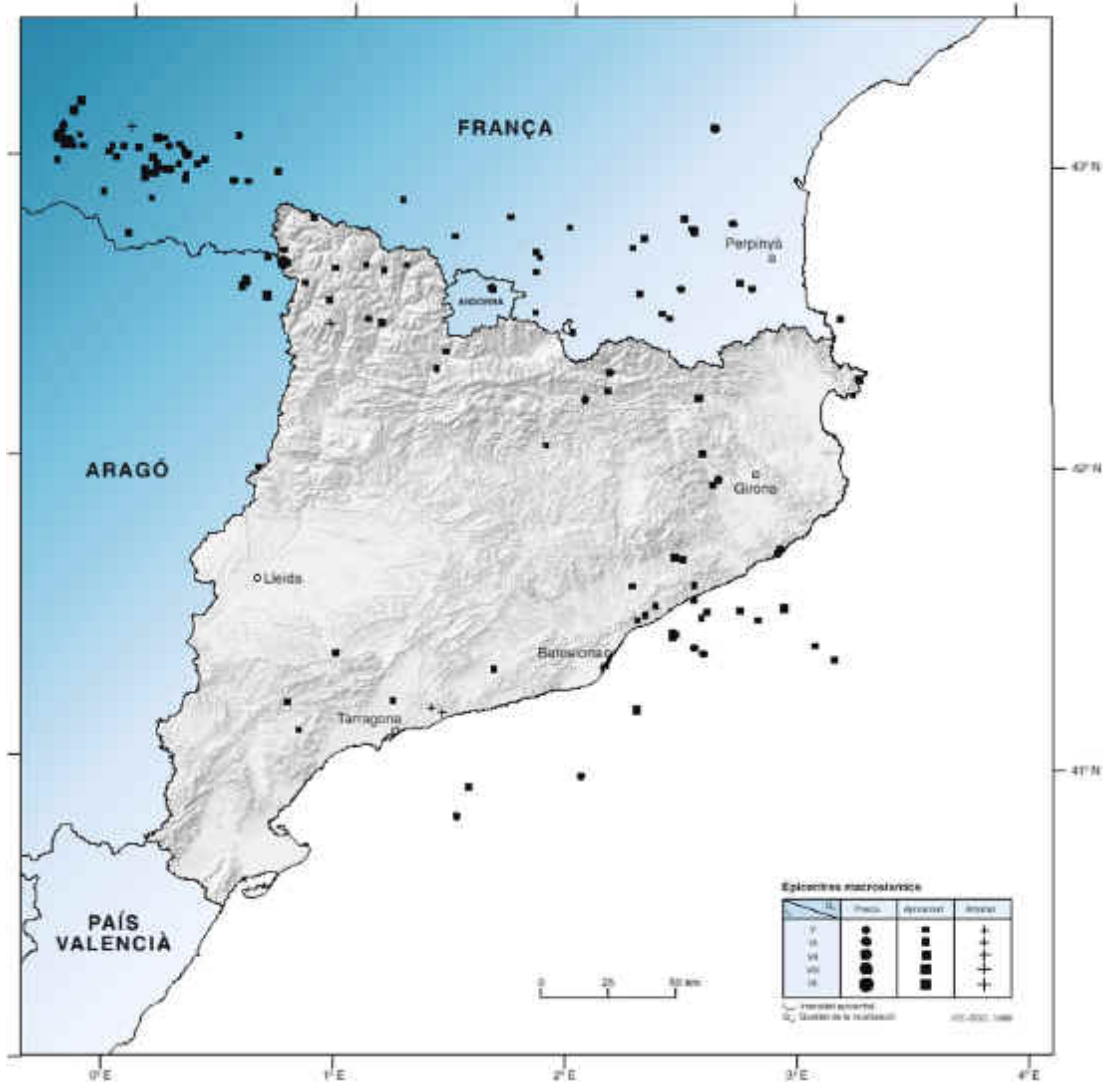
Map 2: Epicenters of earthquakes strongly felt occurred during the XX century

The mapped epicenters correspond to the totality of earthquakes occurred during the XX century, strongly felt, with epicentral intensity (I_0) greater or equal to V.

Different symbols are used to indicate their location precision (Q_e).

Size of symbols are related to epicentral intensity (I_0).

When the intensities are defined by two values (ex. V-VI) the size of the symbol corresponds to the low value (ex. V).



Map 3: Epicenters of all the earthquakes considered in the catalogue

The epicenters of all earthquakes considered in the seismic catalogue are shown including those with an arbitrary epicenter and those without assigned intensity.

Different symbols are used to indicate their location precision (Q_e).

Size of symbols are related to epicentral intensity (I_o). When the intensities are defined by two values (ex. V-VI) the size of the symbol corresponds to the low value (ex. V).

Epicenters of felt earthquakes without an assigned intensity are indicated by a cross (x).

- 3. When the information available comes from a single place or region. In these cases the epicentre is arbitrarily sited.
- Type of event (**Tipus d'event**). This field is used to indicate false or doubtful events.
- Relationship (**Relació**). It is indicated if the earthquake is an aftershock (R) or premonitory ((P) of a principal seism.
- N3. The significant seismic series are indicated by a series identification number for each earthquake forming part of a series.
- Epicentral intensity (**I_o**). deduced from the maximum felt when it is known, or provided by the source considered.
- Maximum intensity felt (**I_x**). This is only indicated when it is different from the epicentral intensity, e.g. for earthquakes occurring offshore or in order to take local effects into account, since for the majority of earthquakes I_x coincides with the epicentral intensity.
- Quality assigned to the intensity value (**QI**) when information is held about its precision. The value 1 indicates greater precision than the value 2. No value appears when the intensity has not been checked, when it is unknown or when the seism is false or doubtful.
Number of macroseismic observations (**OM**). Corresponds to the number of places for which macroseismic information is available.
- Region of the epicentral zone (**Regió**). A characteristic name is given for the epicentral zone; this may coincide with the name of a place or a comarca, or more imprecisely, with the name of an entire natural area.
- Main reference **Referència principal**. Corresponds to one of the IGN, FONT, SURO, SIRENE or SGC catalogues from where the information has been extracted.

Downloads:

- [Atles Sísmic de Catalunya \(, 24 MB\)](#)
- [Ascii \(taumacro.txt, 174 KB\)](#)
- [Dbase III \(taumacro.dbf, 120 KB\)](#)
- [Excel v7.0 \(taumacro.xls, 120 KB\)](#)
- [Codificación campos Word v7.0 \(estrubas.doc, 12.5 KB\)](#)

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