Macroseismic Data of Deep and Shallow Earthquakes in Central - South Peloponnisos (Greece)

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In this study, macroseismic data of earthquakes with epicentres in central and southern Peloponnese are presented. The time period of occurrence covers 150 years, including three “generations” of macroseismic data: The events of the 19th century are treated as historical earthquakes and macroseismic intensities are assessed in the European Macroseismic Scale. The 20th century data reflect the history of macroseismic scales in Greece, that is all RF, MM and MCS scales are present. The collection of macroseismic data was mainly carried out through questionnaires, published in the seismological bulletins. The 21st century data are collected through traditional questionnaires, field reports, as well as via the Internet. The variety of scales is still apparent, with EMS98 catching up rapidly. The problem of combining and processing such an inhomogeneous dataset, which also incorporates inhomogeneous supporting information, is stressed. In total, 14 earthquakes are analyzed, including more than 2,000 macroseismic observations. The oldest event dates back to 1866 in Kythira and the most recent is the January 6, 2008 Leonidio event. Most of them are intermediate depth earthquakes, originating from central and SE Peloponnese, while the shallow ones originate from SW Peloponnese and are characterized as destructive earthquakes. The analysis comprises of evaluation of macroseismic parameters and comparison with instrumental parameters. Different patterns of attenuation due to shallow – deep focus events are also discussed.