

„Damaged speleothems as a record of palaeoseismic activity in the Central Western Carpathians” – popular science summary

Modern earthquakes are one of the few geological phenomena that are easily recognized and recorded by humans. They pose hazard to human habitat and cause disasters in many parts of the world. Many earthquakes of various magnitudes have been recorded in the Carpathians, resulting from movements in the deep geological structure of this mountain belt. The seismic record in this region is based solely on instrumental measurements and historical descriptions, and hence pertains to the modern times and gives a very limited insight in the actual time-frequency of earthquakes. Events with a longer recurrence time may not have been recorded. The aim of the present study is to extend the regional seismic record to the past 600 thousand years by means of the recognition and dating of earthquake-damaged speleothems in the Polish and Slovak caves.