



Historic severe weather events in Austria (1815-1830): Impacts on society and magnitude assessments

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We present recently rediscovered data on severe historic weather events, which occurred in the period from 1815 to 1830. We focus on weather reports presented in Austrian print media. Specifically, we report on severe storms, tornadoes, rain, hail (in the size of pigeon eggs, hen's eggs, walnuts), floods, frost and ice, and mudslides which occurred in Austria and its neighbouring countries.

We will, for example, report on a flood which raged in Vienna in August 1815, on ice in Linz in February 1820, and on a hailstorm which occurred in Eisenstadt in the summer of 1820. The hail storm raged for about six minutes and the hail stones were of the size of hen's eggs. This hail storm was followed by severe rain. As a result, parts of the Esterhazian Garden were destroyed. There are no reports of casualties. Furthermore, we report on a thunderstorm which raged in Toblach (South Tyrol). It was accompanied by hail and caused a severe mudflow. The mudflow destroyed about 40 houses.

Our selection of historic weather events illustrates that the data material is often sparse, but sometimes rich enough for constructing magnitude assessments. In our presentation, we will focus on reported damages on buildings (shattered windows, damaged roofs and chimneys, destroyed houses) and vegetation (uprooted trees, devastated harvests). Moreover, we will investigate how these natural events impacted on early 19th century societies. Finally, we contrast folk explanations with early scientific explanations (in terms of electricity) of severe weather events in the light of current meteorological theories.