



Climatic effects and impacts of the 1815 Tambora eruption in the Czech Lands

Rudolf Brázdil (1,2), Ladislava Řezníčková (1,2), Hubert Valášek (1,3), Lukáš Dolák (1,2), and Oldřich Kotyza (4)

(1) Department of Geography, Masaryk University, Brno, Czech Republic (ladkar@sci.muni.cz), (2) Global Change Research Institute, Czech Academy of Sciences, Brno, Czech Republic, (3) Moravian Land Archives, Brno, Czech Republic, (4) Regional Museum, Litoměřice, Czech Republic

The eruption of Mount Tambora in Indonesia in 1815 was one of the most powerful of its kind in recorded history. This contribution addresses climatic responses to it, the post-eruption weather, and its impacts on human life in the Czech Lands. The climatic effects are evaluated in terms of air temperature and precipitation on the basis of long-term homogenised series from the Prague-Klementinum and Brno meteorological stations, and mean Czech series in the short term (1810–1820) and long-term (1800–2010). This analysis is complemented by other climatic and environmental data derived from rich documentary evidence. Czech documentary sources make no direct mention of the Tambora eruption, neither do they relate any particular weather phenomena to it, but they record extremely cold and wet summers for 1815 and 1816 (the “Year Without a Summer”) that contributed to bad grain harvests and widespread grain price increases in 1817. Possible reasons for the cold summers in the first decade of the 19th century reflected in the contemporary press included comets, sunspot activity, long-term cooling and finally – as late as 1817 – earthquakes with volcanic eruptions.