

Weather patterns of the Olomouc region (Czech Republic) in A.D. 1693-1783 based on records from diaries of the Premonstratensian order

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The paper presents results of analysis of weather records coming from diaries of Premonstratensian abbey Hradisko (Olomouc, Czech Republic) and priory at Svatý Kopeček (near Olomouc) for the period 1693–1783. The diaries (a total of 39 diaries survived), written in Latin, largely concerned of everyday life where also daily information about weather and weather phenomena were included. They cover 50 years of the above mentioned period and allow characterisation of temperature, precipitation and wind patterns, cloudiness, meteorological (e.g. thunderstorm, hailstorm) and hydrological (floods) events. Moreover, observations can be compared and completed by records of Jesuits from Olomouc and Piarists from Stará Voda. Information from diaries was used for creation of monthly temperature and precipitation indices in the 7-degree scale (from -3 very cold/very dry to +3 very warm/very wet). Series of these indices were further compared with similar series coming from Germany and Switzerland from the point of view of their temporal and spatial consistency. Besides, data of different hydrometeorological extremes (floods, windstorms, hailstorms, damaging spring frosts, thunderstorms) were studied with respect to existing past and recent series of such phenomena in Olomouc or in the Czech Lands.