



The 500-year long hydroclimatic reconstruction for the recent Czech Republic derived from documentary evidence and instrumental measurements

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In the last decades numerous proxy-based climate reconstructions focused mainly on temperature variability. However, several devastating floods or drought periods that occurred recently in Central Europe stressed the importance of our understanding for long-term variability of hydroclimatic regime. Valuable information on frequency and intensity of dry/wet spells for the pre-instrumental period can be found in documentary evidence. Series of precipitation indices in the ordinal scale derived from interpretation of various documentary evidence (e.g. narrative reports, visual daily weather records, personal correspondence, special prints, economic records, etc.) are used as predictors in the reconstruction of mean seasonal precipitation totals for the territory of the recent Czech Republic from A.D. 1500. Precipitation indices are calibrated and verified with respect to homogeneous long-term series of instrumental measurements and uncertainty estimates are provided. Temporal and spatial patterns of dry/wet periods found in reconstructed Czech precipitation series are compared with European precipitation reconstructions based on documentary and natural proxies.