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Multiproxy reconstruction of wet and dry periods in the Czech Lands since AD 1500

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Compared to air temperatures, hydroclimatic characteristics are usually less spatially autocorrelated and their reconstruction requires spatially dense and well resolved proxy series. This fact underlines the importance of local and regional moisture-sensitive proxies. In our contribution we present a multi-archive late spring-early summer precipitation/drought reconstruction for the territory of the Czech Republic covering the last five hundred years. Two tree-ring width series complied from living and historical oak (Quercus sp) and fir (Abies alba Mill.) and precipitation indices derived from various types of documentary evidence were tested for common signal strength and seasonality. Relatively high variability in signal strength occurs in pre-instrumental period but also in recent instrumental part of the series. Although this variability may be related to quality of proxy series, we try to find also physical explanation using e.g. circulation characteristics. Several approaches have been tested to calibrate proxy series to long instrumental precipitation measurements and also to several drought indices (PDSI, Z-index, SPEI). We compare our results with existing Central European reconstructions and discuss different sources of uncertainty. Our results show that moisture-sensitive proxy series reconstruct better extremely dry than extremely wet spells.