

Einladung zum Kolloquium

Past fire regime reconstructions using lake sediments of the central European lowlands

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Fire is a natural component of global biogeochemical cycles and is closely related to changes in land cover. An ongoing debate is how far humans and climate have influenced natural fire regimes by altering land cover properties in the past. I will present a study on Holocene human–fire relationships and discuss how and to what extent human-driven fires have affected the landscape transformation of the Central European lowlands (CEL). Sedimentary charcoal composites on three spatial scales are compared with climate-model output, land-cover reconstructions from pollen records and archeological evidences. I will show that – beyond the local scale – humans have had a significant impact on fire regimes, land-cover- and biogeochemical cycles since at least Mesolithic and until modern times. Based on multiple fire proxies from sediments of a northern Polish lake, I will discuss implications of past human land cover change for current and expected future fire risks in the CEL under global climate change.