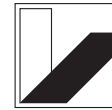


BayCEER Kolloquium

Lectures in Ecology and
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High levels of lead pollution in the Balkans from the Early Bronze Age to the Industrial Revolution

The advent of metal processing millennia ago dramatically changed the course of human history. First emergence of ore smelting occurred c. 7000 years ago in the Balkans, but lack of regionally representative environmental data precluded precise understanding of the long-term impact of such activities in Europe. Recently we assessed the environmental legacy of this long-term history of metal processing by disentangling variability in (Pb) and other metal pollutants in sites from Germany to the central Balkans. We focused on high-resolution geochemical analyses (ICP-MS, xrf-core scanning) on ombrotrophic peat records, which are reliable recorders of direct atmospheric fallout of chemical particulates. We applied also Pb isotope provenance tracing to determine the sources and sinks of Pb pollution and the isotopic variability of several unconstrained Carpathian ore fields, with all data treated in mixing isotopic models and changepoint analyses. These data enabled multi-method multi-site assessments of past pollution, bringing the history of metal processing and environmental pollution in Central-Eastern Europe to a new level of understanding.

