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## Human environmental interactions during the Neolithization of the Ammer Valley: first results integrating paleo-ecological and bio-archaeological evidence

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The Upper Neckar and Ammer river valleys in southwestern Germany correspond to the southwestern limit of the overall distribution of the oldest Linear Bandkeramik (LBK) culture. More than 200 Neolithic sites are known from this region with one of the oldest sites located in the vicinity of the village Ammerbuch-Pfäffingen, around 10 km west of Tübingen, Germany. The archaeological record suggests that settlement activities occurred here between 7260 and 7110 cal BP (or 5310-5160 cal BC). Despite the various activities at the settling site itself, little is known about the environmental impact of the first settlers on the area, ranging from the introduction of farming and animal husbandry with impacts to the forests due to pasture and collection of wood, as well as possible control of water bodies. We here present the first results of a palynological study of two parallel, overlapping 8 m long sediment cores that were retrieved in 2018 from a shallow paleo-lake only a few hundred meters distant from the excavation site. The composite core allows environmental reconstruction of the area between 11540 and 7000 cal BP, based on six radiocarbon dates. Pollen analysis indicates mixed oak forests and an increase of light-demanding vegetation (i.e. *Quercus*, *Corylus*, *Betula*). Current analyses on micro- and macro-charcoal are going to reveal the natural or anthropogenic induced causes of paleo-fire events and Non-Pollen-Palynomorphs (NPP), including dung spores, unravel the possible presence of herbivores (including domestic ones) in the area. The results of the current study and its integration into the bioarchaeological record are relevant even beyond the region providing the usually rarely available paleoecological records from close proximity of an LBK site and thus deliver valuable insights on the environmental settings at the beginning of farming in central Europe.

