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Black soils and/or sediments at the western border of the Nördlinger Ries (South Germany)

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In the framework of a geoarchaeological research project by the Institute of Geography, University of Stuttgart, in the year 2006 the construction of a kerosene pipeline trench was monitored at the western border of the impact crater "Nördlinger Ries" in South Germany (MAILÄNDER ET AL. 2008). Thereby black horizons were recognized at several places. They occured predominantly in depressions and were covered by holocene colluvial sediments, but rested on different bedrocks which include mud- and sandstones as well as lime. The most of these horizons seemed to be rich in humic material and clay.

By means of various studies, which involve sedimentological, pedological, archaeobotanical and -zoological analysis as well as 14C-(AMS)-datings, the periods and circumstances of the development of these black horizons are explored. The poster presents the itemised research methods and their first results. Particularly micromorphological analysis and mollusc classifications turned out to be very valuable to reconstruct the palaeoenvironmental conditions during their formation and subsequent modifications. First datings of bulk samples and charcoal pieces refer to the Atlantic period, but the measured ages distribute to a long time space from about cal BC 5200 to cal BC 4000.

The outcomes of this investigation should facilitate a comparison with similar horizons which are recovered in several Central European sediment profiles, for example in the Amöneburger Becken near Marburg in Hessen (RITTWEGER 2000). Also their composition will be contrasted with samples from archaeological findings in the surrounding and the possibility of an anthropogenic influence on their development will be checked.

References

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