

Radiocarbon dated malacological records of two Late Pleistocene loess-paleosol sequences from SW-Hungary: paleoecological inferences

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The two loess-paleosol sequences of Villánykövesd and Máza preserved expressive paleoecological information of the Late Pleistocene environmental conditions of SW-Hungary. For malacological examinations sampling of 12 cm intervals were used and homogenous amounts of sediment (cca. 5 kg) were collected. During the malacological examinations more than 27,000 specimens were identified. Adjusting their environmental and climatic demands the paleoclimate and paleoenvironment of the last 80,000 years could be reconstructed.

The results of the malacological investigations of Villánykövesd sequence indicated 5 malacological zones (MZs) by the snail species' dominance relations. All of the 5 MZs referred mild climatic conditions with only one cooling phase. The mild climatic conditions were reconstructed by the high dominance of thermophilous species, especially the *Pupilla triplicata*. This warmth loving, xerophilous and open vegetation dweller species is present in the entire sequence, which indicates a refuge area of *P. triplicata* around Villánykövesd.

At Máza sequence 9 MZs could be allocated with mainly significant dominance of cold resistant species, indicating cooler climatic conditions than Villánykövesd. The reason of the high ratio of cold resistant species and the high number of MZs could be the geographic exposition of Máza sequence. Máza sequence is located in a bench between higher and lower reliefs on the northern pediment area of Mecsek Mountains. This indicates the presence of a fluctuation area of the snail species in the area of Máza sequence.

The Late Pleistocene sequences possess different climatic and environmental conditions during same timeframe, so it can be said that the previously reconstructed mosaic-like environmental patters in the Carpathian Basin even here provable.