



# Book of abstracts

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# Palaeoenvironmental and palaeoclimatic reconstruction in relation with the Late Pleistocene human occurrence in the Near East: trough the small-vertebrates assemblages from Kaldar Cave (Khorramabad valley, Iran)

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Near East has a strategic position being a crossroad between Africa, Europe and eastern Asia. Kaldar Cave plays an important role to understand the biological developments of different human lineages, also as the spread of different human behaviour during the Late Pleistocene. Kaldar Cave is located in the northern part of the Khorramabad valley (Central Zagros, Iran) at 1290 meters a.s.l. The site has a Pleistocene occupation (with lithic tools from Middle and Upper Paleolithic) and it was occupied also in Holocene periods (with Neolithic remains). The preliminary study of the small vertebrates from Kaldar Cave has identified 218 remains coming from Layer 4 (sub-layer 5 and 5II), Upper Paleolithic, and Layer 5 (sub-layer 7 and 7II), Middle Paleolithic, comprising rodents, squamate reptiles, and amphibians. The C14 dates from Layer 4 (sub-layers 5 and 5II) produced results in the ranges of 38650–36750 cal BP, 44200–42350 cal BP, and 54400–46050 cal BP, respectively. Here we are focusing on the small mammals coming from Layer 4.

The small mammals assemblage of Kaldar cave is composed of five arvicolinae; two Cricetinae, one Gliridae and two Murinae taxa. Due to needs for more samples, the recovered small vertebrates from sub-layer 5 do not allow us to interpret the palaeoenvironment. While the Late Pleistocene sub-layer 5II has enough sample for that. The preliminary taphonomical analysis regarding the digested elements, suggests that the main hypothesis for the accumulation of

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small mammals bone is due to predation activity, probably by a category 3 predator, such as *Strix aluco* or *Bubo Bubo*. Both predators produce prey assemblages representative of its known environment.

The rodents assemblage indicates an environment surrounding the cave, mainly composed of open dry meadows, as indicated by the presence of most abundant taxa *Microtus gr. socialis* and *Meriones* spp. Together with these taxa, the identified Murinae species indicate the presence of a some vegetation cover. Amphibians and squamate reptiles fossil remains also have been recovered, and the identified taxa indicate rocky or sandy environments linked with warm arid areas.

**Keywords:** small vertebrates, Kaldar Cave, Near East, Palaeoenvironmental and palaeoclimatic reconstruction