BOOK OF ABSTRACTS

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05 – 08 Oral

WAS THE BALKAN PENINSULA A GLACIAL REFUGIUM FOR THE MEDITERRANEAN HORSESHOE BAT, *RHINOLOPHUS EURYALE* (BLASIUS, 1853)?

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Large Mediterranean peninsulas of Europe like the Balkans, Italian and the Iberian Peninsula have been recognized as Pleistocene glacial refugia for many temperate species. The aim of this study was to investigate demographic history and genetic structure of Mediterranean horseshoe bat populations on the Balkan Peninsula. *R. euryale* is a cave-dwelling species distributed throughout the Mediterranean region. We collected 82 samples from 20 localities in the Balkans and Italian Peninsula and analysed genetic diversity of mitochondrial D-loop sequences. Our results revealed low nucleotide but high haplotype diversity, and 20 haplotypes were reported for the first time. Phylogenetic reconstructions showed that all haplotypes obtained from both Peninsulas belong to the same lineage together with the previously published samples from Turkey, southern France and North Africa. All haplotypes from the current study represent single haplogroup and haplotype network had a star-like topology that is indicative of recent population expansion. Scenario of sudden demographic expansion was also supported by shallow genetic differentiation and mismatch distribution analysis, and we estimate that expansion within this lineage started after the last glacial maximum. We present the new data on genetic variation in this species, and highlight the importance of the Balkans in the demographic history of Mediterranean horseshoe bat. The obtained results support the hypothesis that the Balkan Peninsula was a glacial refugium for *R. euryale* during the Pleistocene.

D-LOOP, EXPANSION, mtDNA, REFUGIUM