Population monitoring and management

Proposed methodology for monitoring the endemic Balkan snow vole (*Dinaromys bogdanovi*)

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Balkan snow vole (*Dinaromys bogdanovi*) is a glacial relict endemic to the Dinaric Mountain range in the Eastern Adriatic. It is a habitat specialist associated with karst topography characterized by deep stone fissures, crevices, caves, and sinkholes. The Balkan snow vole is a secretive and neophobic species, making the conventional live trapping methodology extremely time-consuming; consequently, its biology remains understudied. According to the IUCN, Balkan snow vole is categorized as a Vulnerable species (VU), while in Croatia, it was listed as Data Deficient (DD) species and is strictly protected. Since this species is included in Appendix IV of the EU Habitats Directive, Croatia is required to report on its conservation status to the European Commission.

Therefore, as part of the Operational Program Competitiveness and Cohesion 2014-2020, the Republic of Croatia was developing a national monitoring program for the Balkan snow vole. Due to its secretive nature and the lack of data, the primary objective of this project was to develop an effective method for assessing the occurrence of the Balkan snow vole in its natural habitat. Camera trapping had already been used on a limited local scale; however, during this project, we applied the method across the entire distribution range of the species in Croatia. Our primary aim was to evaluate this methodology as a potentially easy and effective means of detecting the presence of the target species. While camera trapping demonstrated both advantages and disadvantages, it ultimately proved to be the most effective approach for assessing *D. bogdanovi* occurrence in its natural habitat.