Population monitoring and management

Monitoring insights for advanced conservation and management of large carnivores

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Monitoring of wildlife has become a key focus in recent years, requiring high-quality data to assess population status, species interactions, habitat use, and breeding patterns, particularly for elusive species. Photo-traps (cameras) have emerged as a valuable tool in wildlife research, offering new insights into species behaviour and individual movements. Our study was conducted across 11 hunting grounds in Buzău and Prahova counties, situated in the mountainous and hilly regions of the south-eastern Carpathians. Over the past two years, we deployed 55 photo-traps from three different models. Brown bear (*Ursus arctos*) was selected as a target species. To determine optimal camera placement, we first implemented preliminary monitoring methods, including tracking in snow/mud and identifying marking signs. Once installed, cameras remained in the field for different time intervals to assess the impact of trap-days on detection rates. The collected data, consisting of photos and/or videos, were stored internally. Two camera models allowed for remote data downloads, while one required manual extraction of the memory card. Data analysis revealed notable differences between the two counties, including the number of identified individuals, the months with the highest activity, the time of day when bears were the most active, and the total number of species recorded. These findings contribute to a better understanding of brown bear ecology and provide a foundation for improving monitoring strategies and conservation efforts in the region.