Towards an analysis of population dynamics of the brown bear in Romania

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The research body on the population dynamics for the brown bear in Romania aims since about two decades at estimating a population growth rate. Encouraged by the recommended key actions for large carivore populations in Europe developed within the EC of the EU (Boitani et al. 2015), the present working paper presents a possible implementation of one of the main recommended actions for managing bear populations, namely, the estimation of the population size based on sound data collected in a standardized way.

According to the reads following preliminary studies would be of great importance:

- Development of an assessment methodology suited for the ecological modeling of the brown bear population in Romania and should be based on data coming from a capture-recapture study using photo-trapping collected according to a previously developed sampling scheme.

- Implementation of a capture-recapture study based on photo-trapping in order to obtain the data used in the subsequent population modeling.

- Estimation of the population size based on the concept of occupancy models.

- Analysis of population dynamics using the results from a Leslie matrix.

- Development of policy recommendations evaluated in a participative manner.

Lots of papers (see Popescu et al. 2015) recommend such studies. This will produce policy recommendations in concordance with the principles of the environmental procedural assessment (Tesileanu 2009) and will enable an adaptive management of the species at national level, based on state-dependent decisions and socially justified objectives (MacKenzie et al. 2006).

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