

Population of the European wildcat (*Felis silvestris*) are slowly recovering after a severe decline in the 18th century. The wildcat was a rare species already on the beginning of 19th century on the territory of Czech Republic. During the 20th century the species was considered to be extinct and the scarce records to be individuals dispersed from Carpathian or West-European population. Furthermore there was lack of evidence to this observations. With the expansion of photo monitoring methods, there comes pictures of wildcats from the Beskid Mountains, Bohemian Forest, The upper Palatine Forest and Doupov mountains. After more than 60 years there is finely a proof for the presence of wildcats in Czech Republic.

To understand its space requirements and dispersion context, and to know if there is a place for wildcats to live in Czech Republic, we made a habitat model in ArcGIS. This rule-based model works with attributes like land cover type, duration of snow cover, aspect and the vertical heterogeneity of terrain. The model was applied also for Slovakia, because the evaluation data only comes from Slovakia.

We found out that the occurrence of wildcats in the model territory relate to broad-leaf forests, duration of snow cover (>20cm) not exceeding 50 days and the southern exposure. In Czech Republic there is only 4% of the territory representing the best habitat type for wildcats. In Slovakia it is 20% of the territory.