

Identification of priority conservation areas for the Persian leopard (*Panthera pardus saxicolor*) and prey species in the Lesser Caucasus

Pauline Holz, Master Thesis

Abstract

Leopards (*Panthera pardus*) are declining rapidly worldwide due to massive anthropogenic pressure. Their conservation needs large-scale connectivity among protected areas with good prey availability. The aim of my study was to find out new priority conservation areas for the Persian leopard (*Panthera pardus saxicolor*) in the Lesser Caucasus (220,000 km²) with good potential for three of its main prey species the bezoar goat (*Capra aegagrus*), Gmelin's mouflon (*Ovis gmelini gmelini*), and red deer (*Cervus elaphus*). I identified their distributional hotspots through species distribution models modelled with MaxEnt. I ran the spatial prioritization algorithm prioritizr to determine priority conservation areas under economic and ecological objectives. The algorithm calculated priority conservation areas (58000 km²) mainly located in the border region between Armenia, Azerbaijan, and Iran, in north-eastern Turkey, and in north-eastern Armenia. The calculation proves that large suitable areas for new protected areas for the Persian leopard and three of its main prey species in the Lesser Caucasus exist.

solution 4: problem with protected areas, short boundaries and high connectivity

