VETERINARY PROTOCOLS IMPORTANCE IN LYNX CONSERVATION

PAVEL KVAPIL[1], MAGDA SINDIČIČ[2], LAN HOČEVAR[3], JAKA ČRTALIČ[4], HUBERT POTOČNIK[4], TEODORA SIN[5,6], JAKUB KUBALA[7], MICHAL BELAK[8], ALEŠ PIČULIN[9], MARUŠA PROSTOR[9], ROK ČERNE[9], MIHA KROFEL[3]

1. Veterinary department Ljubljana ZOO, SI-1000, Ljubljana, Slovenia
2. Faculty of Veterinary, Medicine University of Zagreb, Heinzelova 55, Zagreb, Croatia
3. Department of Forestry, Biotechnical Faculty, University of Ljubljana, Ljubljana, Slovenia
4. Department of Biology, Biotechnical Faculty, University of Ljubljana, Ljubljana, Slovenia, SI-1000, Ljubljana, Slovenia
5. Environmental Protection Agency, Vrancea county, Romania
6. University of Bucharest, Romania
7. Technical University in Zvolen, Faculty of Forestry, Department of Applied Zoology and Wildlife Management, Zvolen, Slovakia
8. Veterinary clinic ZOOVET, Prievidza, Slovakia
9. Slovenia Forest service, Slovenian Forestry Institute, Ljubljana, Slovenia

ABSTRACT

The Life Lynx conservation project in Dinaric Mountains and South-eastern Alps aims to save the small reintroduced, and extremely-inbred lynx population from extinction and secure its long-term survival. Monitoring the resident lynx population and reinforcing it with new, healthy animals from viable Carpathian population are critical elements of this project. Clinical and laboratory health assessment, optimal peri-anesthetic monitoring and quarantine are important factors guaranteeing good physical condition of animals prior to their translocation and release. Out of eight resident lynxes from the Dinaric population collared in the last 5 years, a heart murmur was detected in three of them. In contrast, none of the 18 animals translocated from the Carpathians showed clinical signs of a heart condition and the same was true for 8 of their offspring that were also inspected during captures for collaring. In two lynxes that presented with a heart murmur, an atrial septal defect (ASD) was diagnosed, either postmortem or intravitally as the cause of the murmur. In the third case of heart murmur, the etiology remains unknown and the lynx is still alive. Atrial septal defect as a congenital heart condition has been previously described with a very high prevalence (18%) in the Florida panther population, where the inbreeding rate is also strongly emphasized (Cunningham et al. 1999). Thorough execution of veterinary protocols including careful clinical examination and monitoring of the captured animal by a wildlife veterinarian or trained biologist are extremely important factors in detecting similar cases in the future. A multimodal approach, access to preclinical diagnostic methods, laboratory analysis and consistent adherence to prescribed necropsy protocols are necessary for definitive diagnosis of hidden or previously unknown health abnormalities, which are essential for the conservation of threatened populations suffering from inbreeding.

CUNNINGHAM MW, DUNBAR MR, BUERGELT CD, HOMER BL, ROELKE-PARKER ME, TAYLOR SK, KING R, CITINO SB, GLASS C. Atrial septal defects in Florida panthers. Journal of Wildlife Diseases. 1999 Jul;35(3):519-30.