リンクス ー 近代ヨーロッパにおけるその生態と保全

The Eurasian lynx - its ecology and conservation in modern Europe

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The Eurasian lynx *Lynx lynx* has once occurred over most of Europe. Today its range shrunk to the Eastern part of Europe and Fennoscandia and is basically dependent on the distribution of large forests. Although the species shows great ecological plasticity, it is vulnerable to various local constraints related to human influence. In Poland, the lynx occurs in several forest complexes of the north-east and mountainous area in the south. Despite full protection, its range decreased during a recent decade. The research on species ecology has been conducted since 1991 in the Białowieża Primeval Forest (BPF) with use of radio-tracking to provide basic knowledge for its conservation. The main mortality cause in lynx was found to be human related: excessive hunting in the past and poaching in present. The preferred food of lynx were ungulate mammals, especially roe deer *Capreolus capreolus*, which amounted 62% of their prey. The lynx population in BPF took 110-170 roe deer / 100 km^2 annually. Additive influence of lynx predation, intensive hunting harvest and wolf predation caused a 2-fold decline of the roe deer population from 1991 to 1995. This decline had a negative effect on lynx reproduction. Strong dependence on roe deer was likely the reason that the lynx home ranges were very large – 248 and 130 km^2 in males and females, respectively. In effect, no more than 40-60 lynx may inhabit the whole forest. Some individuals, especially young males, dispersed for long (> 100 km) distances from the BPF. It showed that lynx of BPF are part of larger population and that long-distance dispersal may be necessary for its subsistence. Findings from BPF seem to be representative to other Polish forests as well. High fragmentation of forests, may have disrupted dispersal and migration processes, and likely caused a recent lynx decline. Therefore, recovering the habitat connectivity and maintenance of high densities of roe deer are indispensable for long-term survival of lynx. A study on lynx genetics is carried out now to show the influence of habitat fragmentation and other factors on genetic variability of lynx populations. It is hypothesised that isolated populations of the Eurasian lynx distributed on the edge of the species range may have undergone a depletion of genetic variability, which may threaten their survival.