

IMPACT OF FORESTRY ON POPULATION STATUS OF CAPERCAILLIE *TETRAO UROGALLUS* IN LATVIA

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Capercaillie *Tetrao urogallus* is a specialist of natural boreal forests. It could be expected that ever intensifying forestry in Latvia is moving the forests away from their natural state thus having a negative impact on Capercaillie population. In order to investigate this we reviewed two relatively recent studies, which provide data on Capercaillie.

The information on the population status of Capercaillie we have is not comprehensive but all the data there is shows population decline both in short and long term. The longest time series of Capercaillie population data, although much criticised for its quality, is the counts made by State Forest Service. The data show a decline in Capercaillie numbers since 1930s. Decline in distribution is also apparent. Comparison of the data of both Latvian Breeding Bird Atlases (1980-1984 and 2000-2004) shows a decline in distribution by 8% despite the fact that more attention to finding Capercaillie leks was paid during the latter period. Due to the decreases in population size and distribution Capercaillie population in Latvia can be classified as Vulnerable according to the criteria of IUCN.

Although forestry is by no means the only factor affecting Capercaillie population negatively, direct and indirect impacts of forestry are at least partially documented and seem to be significant. Due to the impact of forestry the boreal forests of Latvia are far from their natural state, but data show that Capercaillie tends to select more natural sites for lekking. Forest features found as most significantly affecting quality and distribution of lekking sites were - presence of old stands, natural openings in forest stand (patchiness of old forest stands), good feeding conditions near the lekking sites (abundance of *Vaccinium myrtillus* and *Eriophorum sp.* found to be important), height and density of forest undergrowth's and its patchiness, availability of hiding places, habitat fragmentation and presence of deadwood (large wood debris).

The old stands can be found mostly in protected areas. It must be noted that most (more than 90%) of Capercaillie leks occur in state-owned forests. Total forest cover of Latvia has been growing at least since 1930s and the total area of forests (including pine forests, which are the main habitat for Capercaillie) above the age of commercial cutting has also increased between 1980 and 2000. Therefore, the reasons for the population decline apparently lie within the changes of habitat structure and following population fragmentation. The main means of cutting forests in Latvia is clear-cuts. Since 2000 the total area of clear-cuts in state forests has increased as has the total amount of wood harvested. Another aspect of forestry is the long-term impact of draining the forests. Due to the drainage Capercaillie lek-sites tend to overgrow thus becoming unsuitable for leks.

Indirect impacts of forestry activities include disturbance (probably highly significant but little studied) and changes in the numbers of predators.