

Forestry and game management: benefits and conflicts

András Náhlik

Institute of Wildlife Management and Vertebrate Zoology, Faculty of Forestry, University of West Hungary

Bajcsy-Zs. u. 4., H-9400 Sopron, Hungary

nahlik@emk.nyme.hu

The assessment of the effect of ungulates on their habitat, including forest damages, remains one of the most contentious problems arising amongst foresters, game managers, and nature conservationists. Forest management often leads to even-aged and unmixed forests. The elimination of the shrub layer and ground cover vegetation, as well as elevated populations of ungulates, can result in the change of the ecologically favourable forest stands. Moreover, there are cases when the overpopulation of the ungulates impedes natural forest regeneration. However, the complexity of this matter is demonstrated by many studies which show a lack of close correlation between the density of ungulates and forest damages. The root of the problem is more often the different interests of the actors: foresters, game managers, hunters, nature conservation offices, and NGOs.

The great majority of the forests in Europe are managed for commercial and/or for protection or recreational purposes. Consequently ungulates can cause sensitive damage in reforestation. Damage is related to population numbers; the majority of damage in Europe is caused by red deer and roe deer, although wild boar also can cause damage in natural regenerations. This damage leads to problems for nature conservation. The interrelation of ungulates and forest affects forest management profitability.

The presentation deals with the relationship between forest ecosystems and ungulates. In natural forest ecosystems, ungulates have minor effect on the vegetation. However, the management of forests for multiple uses leads to conflict between forestry and game management objectives because of forest damage. Damage caused in reforestation and afforestation is problematic because the density of ungulates is increased artificially while the source of their feeding is the cultivated commercial forest. The high density of ungulates can cause not only economic damage but also damage to the ecosystem. A specific problem of the forest-ungulate interaction is the negative effect on continuous cover silviculture. There remain many research questions regarding ungulate-forest interactions in a continuous cover silviculture system, such as the density of ungulates which will allow the system, and whether or not the system provides favourable habitat for ungulates.

The consequences of ungulates feeding in forests are loss of income and increase in expenses. The damages appear in the form of browsing, bark stripping and fraying, mast eating and breakage of pole trees. However, it is important to mention that not every browsed shoot or stripped bark should be considered as damage.

The ecological and economic impacts of browsing are summarized in this presentation. It is argued that the effect of browsing of seedlings and bark stripping of pole stands is quite contradictory and

should be assessed carefully both on the level of the individual tree as well as the regenerated forest stand.

Multiple factors affect the extent of damage caused by ungulates to forests. The simplest approach is to consider it as a matter of ungulate density. However, a series of other factors can affect the extent of the damage, such as the method of regeneration, methods for damage prevention, the supplementary feeding by ungulates and the weather in winter.

The economic balance of ungulate management and forest damage is presented. Possible methods for preventing or mitigating damages are discussed.