



PARASITOLOGICAL ASPECTS RELATED TO ACCLIMATIZATION AND INTRODUCTION OF WILD UNGULATES

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Abstract. Long-term observations and literature data on the influence of acclimatization and introduction of wild ungulates on the territorial helminth-faunistic complex are summarized. It is shown that in some cases imported wild ungulates can lose their specific parasites, but acquire local parasites and can support foci of local parasitic diseases.

Keywords: helminths, wild ungulates, acclimatization, introduction.

INTRODUCTION

The development of helminth-faunistic complexes of any animal groups depends on natural and anthropogenic factors. The latter are becoming increasingly important from year to year. At the same time, the role of lands as a natural food base for animals is decreasing, but the importance of hunting, economic, veterinary and preventive activities of man, maintaining the number and health of the herd of wild ungulates at a given level, is increasing. Due to acclimatization and introduction, the use of biotechnical achievements, the species composition is expanding and the number of animals imported from other regions without analysis and accounting for the helminth fauna is increasing. In different parts of the deer range, the number of registered species varies, but 4-5 obligate ones are found everywhere, and the presence of other species depends on the conditions in a particular region. Analysis of the helminth fauna of wild and domestic ruminants in certain regions showed a commonality of species in both. The degree of damage to animals varies, depending on the biological characteristics of the hosts and parasites, as well as the natural conditions of a particular territory, which can ensure the helminth's survival in the external environment and the opportunity for further development [1].

MATERIALS AND METHODS

An analysis of literary and original data [2] on the species commonality of helminths in domestic and wild ungulates showed that domestic animals are the keepers and distributors of a significant number of parasites in wild animals.

The formation of a territorial helminth-faunistic complex (THFC) is a long process that depends on many factors: the landscape of the territory, climate, vegetation composition, soil acidity, the development of the hydrological network, the degree of anthropogenic pressure and many other components that together determine the number and distribution of individual species of helminth hosts across the territory.

During introduction, animals acquire native parasites, while infecting territories with new species of helminths, brought in along with acclimatized animals, some of which cannot, for one reason or another, adapt to new conditions of existence, while others find their hosts. For example, the obligate parasite of deer *Elaphostrongylus cervi*, brought to the Non-Black Earth Zone together with acclimatized animals from Altai and Primorye, for some reason could not adapt to the new conditions of existence and become part of the local TGFK. The brought animals lost this parasite.

RESULTS AND DISCUSSION

Similar processes are clearly visible in the territory of the North-West Moscow Region.



The North-West Moscow Region, which includes the Zavidovo National Park, is located in the central part of the East European Plain within the Upper Volga Lowland and the Klin-Dmitrov Moraine Ridge.

The significant forest cover of the area, combined with the abundance of swamps, and the high natural bioproductivity of the vegetation made it possible to use these lands for breeding wild animals. On this basis, the Zavidovo hunting farm was organized back in 1929. We single out the territory of the North-West Moscow Region in particular, since for a long time we have been monitoring the circulation of the most dangerous invasive diseases for ungulates (fascioliasis of ungulates, metastrongylosis of wild boars) and a number of other ecological processes occurring in local biocenoses.

The most intensive development of the economy, work on the restoration and enrichment of the fauna began in the 60s of the twentieth century. By this time, protection was created, the fight against predators was established, veterinary and sanitary control was established, after which the import of animals (wild boars, red deer, sika deer, etc.) from different regions of the Soviet Union began, which after being kept in enclosures were released into the wild.

One of the main factors determining the number of wild animals is the availability of natural food and its potential supply. In summer, animals are not fed, but in winter, wild boars receive concentrated feed, and marals and sika deer receive hay, brooms and concentrated feed. Salt licks are used for mineral feeding. In addition, biotechnical measures are carried out in the lands to form forest plantations.

The import of a large number of animals without taking into account the capacity of the lands led to the creation of an increased concentration of their populations in the territory under consideration. It should be added that until recently, in the North-West Moscow Region, there were a large number of dairy farms and private farms, whose cattle grazed in forest lands. All this increased the possibility of the emergence of various infectious and invasive diseases, primarily of wild animals, as less protected. As a result of the introduction and acclimatization carried out, by 1983 the population density of animals already significantly exceeded the permissible norms for this territory (elk - 5, maral - 10, sika deer - 10, wild boar - 10 per 1000 hectares) and was: wild boar - 39.1, sika deer - 26.6, maral - 11.4, elk - 5.9 individuals/1000 hectares. Subsequently, thanks to biotechnical measures, the number of animals continued to grow, and the reserves of natural food fell [4].

CONCLUSION

Acclimatization of animals involves increasing the number and species composition of animals in a specific territory. Along with animals imported into the region, new helminths are inevitably imported, which can become pathogenic for native populations. At the same time, imported animals can acquire dangerous parasites from the natives, which sometimes cause unpredictable consequences. When importing animals, it is necessary to take into account the natural capacity of the land, which can provide feed for new and old populations already present in the region, which would reduce the cost of keeping animals.

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