The importance of coordinated monitoring in the control of outbreaks and expansion of wildlife diseases in Bosnia and Herzegovina

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Introduction
The problem of conducting measures that protect human and animal health from the aspect of game health conditions control, as well as sources and vectors of infectious diseases, is a very complex subject (Aguirre et al., 2004). When we speak about directly predisposed people, it is usually thought about hunters, foresters, cattle breeders, vets and other categories that directly contact game and the ambient in which it lives (Daszak et al., 2000; Littin and Mellor, 2005). On the other hand, we can also speak about directly exposed animals such as hounds, stray dogs, but also domestic animals that use the same paths and pasture land as wild animals do.

In the context of protection; veterinary, sanitary, preventive and diagnostic measures represent only one segment in the entire complex of necessary activities as well as performing inspection surveillance, application of prophylactic measures and a control of processing, manufacturing and trading game and its parts represent important issues.

Inspection and monitoring
If we analyze the approaches mentioned above that have also been processed by actual legislative regulatory, it is certain that they are very important, but they are not enough, nor they represent a complete system of measures, which should be taken in order to continuously and in time, deal with the control of outbreaks and expansion of wild animals’ diseases. In order to get one complete and reliable picture that will point out the actual size of the problem, a well considered, systematical and interdisciplinary monitoring is needed, which would include all the factors that might contribute to the monitoring of diseases outbreaks and expansions.

Considering monitoring mentioned above, monitoring of controlled game breeding is understood as a part of management implementation (Sinanović et al., 2006). If we observe the present situation closely, it is obvious that complete management implementation is, in this respect, questionable.

Monitoring in control of outbreaks and expansions of game diseases in nature represents a more complex segment if it is seen as implementation of these measures and at the beginning of the issue analysis, economic factor is certainly suggested as one of the primary and the most important questions. We had an opportunity, not so long time ago, to observe certain projects such as the so-called per oral vaccination of foxes project in bordering countries, the price for which was rather high, but efficiency indicators were low.

The approach of implementing these measures is somewhere seen from the aspect of contemporary cattle breeding, but the practical imple-
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...onto animal carcasses in the hunting areas. Only simultaneous elimination of animal examinations of animal organs and nated game. In this sense, regular and by regular execution of contami- nations on suspected diseases to achieve by conducting diagnostic nation, so game monitoring is easy pathological dissection and exami- nations that can become a problem of other game, cattle, dogs and people as well.

Basically, we can say that measures implemented in the open habitats represent quarantine for new game and general hygienic and sanitary procedures, which depend upon the game species and diagnosed disease. Sanitary executions are a part of this.

As mentioned above, problems of extensive and intensive game breeding are extreme in its character. The contemporary practice is somewhere in the middle. It includes gather- ers, huge game preserves, enclosed hunting areas, particular breeding phases and different combinations of all. It would be optimal to adjust these measures for every breeding. Naturally, this is the veterinary ques- tion, in which we have to differentiate game sanitation from disease treat- ment, considering the fact that these two activities are closely connected.

We also have to question practi- cal implementation. Knowing that rotting animal carcasses are rarely found and even when found they are not in the appropriate conditions for pathological dissection and examina- tion, so game monitoring is easy to achieve by conducting diagnostic examinations on suspected diseases and by regular execution of contami- nated game. In this sense, regular examinations of animal organs and tissue must be conducted, as well as simultaneous elimination of animal carcasses in the hunting areas. Only carcasses inappropriate for examina- tions are mentioned above.

Collecting materials for coprologi- cal examinations is suggested as a regular measure and a component of monitoring process. The materials should be collected twice a year.

Moreover, having in mind every- thing said above, we have to suggest the conclusion that prevention from the practical aspect is more accept- able than disease treatment as well as the fact that good governing of hunt- ing areas must include employment of well-organized experts who would work on regulating and protecting habitats. By doing so, they would si- multaneously prevent diseases.

Summarizing everything mentioned above, it is important to point out the importance of experts’ work and efforts on preventing zoonoses and parasitosis outbreaks and expansion.

This paper refers to measures of conducting quarantines on new game, controlled circulation of cattle and cattle’s products and trade control of killed animals and their parts.

It surely wouldn’t be wrong to conclude that there is not enough knowledge about the frequency of a particular game disease outbreaks, their range and expansion, and as well as to conclude the fact that some special attention is not paid to it.

Moreover, the real direct damages caused by game diseases and damages caused by hunting are still un- known. That is why it is important to stress the importance of complete game monitoring in the whole area of Bosnia and Herzegovina. So far, only individual samples have been analyzed. In this way, only sporadic cases are observed and these cases do not submit an insight into the percentage portion of some disease, and they are indicative only when an epidemic spreads in some area. In a word, the preventive action, due to which monitoring is usually estab- lished is lacked.

On the contrary, monitoring which would be based on a delivery of dead game and based on a deliv- ery of organs and the total amount of killed animals would represent a vastly detailed base for preventing diseases and its treatment (Torsten, 2002; Couacy-Hymann et al., 2005). Naturally, this could only be applied on game in which such changes were noticed upon medical dissec- tion. Would the triage be conducted on every hunter’s hunting experi- ence (empiria) or education of the so- called meat examiners in every hunting area, as it is frequent in some counties as their regular practice, is a less important question. It is impor- tant to stress that this model should be based on a proper legislative and it should be supported by premium payments for every game delivered for an examination. Initially, this mon- itoring could be implemented on a certain territorial unit- as a pilot pro- gram. Security officers are interested to support this initiative, and hunters, besides health protection, which is their primary concern, would be able to use the financial funds that exist for these purposes under the EU pro- gram and are designed for countries that are not members of the Union. Unfortunately, there is a lack of coor- dinated action based on which these funds would be claimed and used in Bosnia and Herzegovina.

On the other hand, all organized breeding that is based on keeping numerous animals in limited space, without any regard to applied tech- nology and nutrition, can not be satisfied by probing of population’s health conditions. Even coprological examination at two sittings cannot be enough. For such breeding, it is extremely important to apply DDD measures. Considering the fact that it
is not possible to eliminate all rodents, mice and voles by rat poisoning, it is crucial to control and decrease their number by these measures. The rest of their population should be submitted to serological, microbiological monitoring twice a year in order to get the complete view into the pathology of this numerous population, which seems irrelevant in the hunting economy. Beside the so called “soil pathology”, it is well known that the most important source and vector of infectious diseases are rodents (Margaletić et al., 2001). Organized breeding with minimal reproduction, high mortality rate, where technology is the aim to itself is not justified. For this reason, a well-planned and high-quality coordination of veterinaries and hunters is necessary, as well as it is important to work on it seriously in the following period.

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References


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