

## **THE CHARACTERISTICS OF THE ROE DEER'S GROUP FORMATION IN AN AGRICULTURAL HABITAT**

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### **ABSTRACT- The characteristics of the roe deer's group formation in an agricultural habitat**

The appearance of the roe deer in agricultural areas can be done in the beginning of the 1950th years. The forest and agricultural habitats differ from each other in innumerable characteristics. The aim of our examinations to describe in a descriptive way the characteristics of the group formation of roe deer living in open agricultural area, and its changes occur during a year. Furthermore we examined if there is a temporal agreement between the change of the group size and the degree of the habitat's density. We did visual observations with weekly regularity through a year and noted every roe deer what we have seen and recorded the parameters of the vegetation. We calculated the proportion of the parts of the area providing a covering to each single month and then we characterize them with this value. Based on the groups' observations we calculated potential- and counted middle values per month and categorised the seen groups based on their greatness. We compared the parameters of the vegetation and the characteristics of the group sizes with each other.

According to our results the formation of roe deer group showed substantial differences in the course of the year. The year can be split into two well-separable parts, which alternate with temporary periods. From May to July the proportion of lonely individuals dominated, in August and in September the groups consisting of 2-3 individuals were the most typical ones. In October there were groups consisting of more than 10 individuals, from November to February the groups consisted 4-5 or more individuals, occasional there were groups over 50 individuals. In March the proportion of the smaller and bigger groups equalised, then from April the incidence of lonely individuals increased. The increase of the group greatness followed delayed the decrease of the degree of the covering the autumn temporary period. There were the largest groups in the period providing the lowest covering. In spring the increase of the covering didn't unambiguously synchronized with the establishment of group sizes. The groups started breaking up before the covering of the area would have showed an increase. This indicates that in this period other factors play a more important role than covering. To understand this we examined the structure of the groups, the number and sex of lonely individuals in April and May. We deduce from the results that the reason of the groups' decomposition might be the territorial behaviour of the bucks.

**Keywords:** agro ecosystem, behaviour, territory, antler cycle, testosterone level