DYNAMICS OF WILD ANIMALS POPULATIONS FOR HUNTING FROM 50 BANLOC ARIA, FOREST DISTRICT LUNCA TIMIŞULUI, IN 2007-2011 PERIOD

D. Dronca[1*], N. Păcală[1], I. Bencsik[1], C. Pascal[2], Mihaela Ivancia[2], M. Matiuti[1], R. Popa[3], Adela Marcu[1], Ada Cean[1], A. Oprea[4], Liliana Boca[1]

[1] *University of Agricultural Sciences and Veterinary Medicine, Timisoara, Romania*
[2] *University of Agricultural Sciences and Veterinary Medicine, Iasi, Romania*
[3] *University of Agriculture Sciences and Veterinary Medicine, Bucharest, Romania*
[4] *Forest District Timisoara, Romania*

Abstract

Romania integration in EU, impose a special attention on hunting animals populations. The aim of the present paper is to study the quantitative evolution of the hunting population for 13 breeds, in the period 2007-2011, in the hunting terrain 50 Banloc, from Forest Domain – Lunca Timisului, with an total area of 11,148 ha. The conclusion was that the numeric evolution of the studied breeds is normal, keeping a balance between populations as a result of natural and artificial selection. It was also noticed that there is a good correlation between the numbers of individuals from the studied breed and the biogenic capacity of the studied hunting fund.

Key words: hunting animals, hunt population, cynegetic

INTRODUCTION

Romania integration in EU, impose a special attention on game animal populations. The hunt was always a spring of rich in our country, not only by the large number of animals but also by the variety of species. The hunt represents the oldest human occupation, before all others jobs human was hunter and gatherer. As old as man, the hunt was evolved with the human and with the development of the society. In this domain, man made the first observations, research and discoveries, also the first inventions. After extended study of the Palaeolithic hunters, it was proven that there were domesticated animals [3]. The discovery of the spear, bow with arrows, perfecting the tools and hunting methods were the first and most important inventions of the primitive era, which lead to an increase of the success of the hunt [2].

Romania is one of the few countries in UE, that still have pools for aquatic hunting, large forest for roe deer, bears and other big hunt. The duty of hunters is to know the environmental requirement of the hunted animals and to contribute to its preservation.

The hunting terrain with the constructions makes up the hunting patrimony.

Starting from the year 1948, all over our country, the hunting terrain becomes state propriety. From that date, since there was no private propriety, large hunting terrain could be established. The management measures applied to a hunting terrain depends of the species that populate it. Presently, in Romania, after the institute of the Law 103/1996, the number of the hunting domains is 2,227. Main developmental conditions for a hunting domain and existence are: food, shelter and quiet.

There is considered that the hunt density is optimal when a sufficient number of individuals exist according to biogenic capacity. Exceeding the optimal density can cause damage to other economical arias and also can affect the specie in cause, through lack of food, shelter and rapid expansion of diseases and other detrimental factors [1].

The aim of the present study was to study the quantitative evolution of the game animal populations for 13 animal species, from 50 Banloc, area in the period of 2007-2011.

MATERIAL AND METHODS

Hunting ground taken into consideration, with a total surface of 11,148 ha, is delimited at North by the channel Lanca-Birda, at East by railway Voiteg-Denta, county road Denta-border with Serbian Republic, at south by the border with Serbian Republic, and at Vest by rural road Ghilad-Ofseniţa, the communal road Ofseniţa-Banloc-Partoş, until the frontier with Serbia.

In table 1 are presented the total surfaces of the hunting ground studied, divided by categories.

Table 1 The surface of the hunting terrain 50 Banloc, divided into categories

UM	The cynegetic productive surface for:					Unproductive land	Total
	Aquatic animals ground	Other hunting species					
	Water surface	Forest	Agricultural land	Grazing field	Total		
ha	316	739	8,658	1,216	10,613	219	11,148
%	2.83	6.62	77.13	11.45	95.20	1.97	100

From table 1 it can be noticed that from the total surface of the studied hunting ground of 11,148 ha, the water surface is 316 ha, which represents 2.83% while other species of hunt have a total surface of 10,613 (95.20%), from which arable 8,658 ha (77.13%), grazing 1,216 ha (11.45%), and forest 739 ha (6.62%). Cynegetic unproductive surface represents 1.97%, (219 ha).

The study presented in this paper is aiming to evaluate the number of animals from this hunting ground in the period 2007-2011, because without this information a rational hunting of the animals would not be possible. Knowing the number of animals, serves for evaluate the annual number of animals that can be hunted and to calculate the complementary food requirements for the winter, and it also helps maintaining the sex ration. The number of animals is crucial for achieving an optimal density and prevent degradation of the trophies and the damages in forest an agricultural cultures. This is why the evaluation of the number of wild animals must be made with responsibility by persons that know the terrain and the biology of the game animals.

RESULTS AND DISCUSSIONS

In table 2, is presented the evolution of the spring effectives by species and number of individuals during the whole studied period.

Table 2 The evolution of the spring effectives from the 50 Banloc hutting terrain, in the period 2007-2011

Specie	2007	2008	2009	2010	2011
Red Deer (*Cervus elaphus L*)	130	130	140	164	165
Fallow Deer (*Dama dama L*)	-	-	-	-	-
Roe Deer (*Capreolus capreolus L*)	110	125	130	141	140
Wild hog (*Sus scrofa L*)	70	70	65	68	70
European hare (*Lepus europaeus P.*)	700	700	700	710	715
Wildcat (*Felis silvestres L*)	-	-	-	-	-
Common Pheasont (*Phasianus colchicus L*)	600	630	650	690	690
Grey Partridge (*Pedrix pedrix L*)	50	50	50	50	50
Red Fox (*Vulpes vulpes L*)	30	30	30	30	30
European Pine marten (*Martes martes L*)	-	-	-	-	-
Mustela (*Putorius putorius L*)	8	8	8	8	8
Least Weasel (*Mustela nivalis L*)	8	8	8	8	8
Muskrat (*Ondatra zibethica L.*)	10	10	10	10	10

From the analysis of the table 2, it can be noticed that on this hunting terrain on all studied period (2007-2011), there were no individuals from three species: Fallow Deer (*Dama dama L.)*, Wildcat (*Felis silvestris L*), European pine marten (*Martes martes L.*).

Red Deer (*Cervus elaphus L.)* registered an significant increase of its effectives, in the year 2007 were identified 130 individuals in 2009 there were 140 (7.7%) individuals, in 2010 there were 164 (26.1%), and at the end of the studied period there were 165 individuals. It can be concluded that this specie registered an increase of 26.92% during a five years period (2007-2011).

A similar evolution was registered for Roe Deer (*Capreolus capreolus L*), at which at the start of the period (2007) there were 110 individuals, in 2008 there were 125 individuals (13.6%), in 2009 were 130 (18.18%) individuals, and 2010-2011 the number is stabilized at 140. So in the case of Roe Deer (*Capreolus capreolus L)* specie the increase during the studied period was 27.7%.

Wild hog (*Sus scrofa L*) specie registered at the beginning of the period (2007) 70 individuals, number that remained constant in the next year (2008), in 2009 the number decreased at 65 (7.14%). Starting with 2010 the analyzed specie regained the initial number, 68 individuals, and in 2011, 70 individuals were observed.

The European hare (*Lepus europaeus P.*), registered the following evolution of the effective: 700 individuals in 2007-2009 period, 710 individuals in 2010 and 715 individuals at the end of the period the increase was 2.14%.

A significant increase of the number of individuals were registered for the specie Common Pheasant (*Phasianus colchicus L.*) which in 2007 had 600 individuals, number that reaches 690 individuals in 2011(15%).

From of table 2, is can be noticed that at 5 species from the 13th studied, the number of individuals from spring maintained for all the studied period. The species that maintained constant were Red Fox (*Vulpes Vulpes L*) 30 individuals, Mustela (*Putorius putorius L.*) 8 individuals, Least Weasel (*Mustela nivolis L.*) 8 individuals, Muskrat (*Ondatra zibethica L.*) 10 individuals and Grey Partridge (*Pedrix pedrix L*) 50 individuals.

CONCLUSIONS

At the end of the studied period 2007-2011 the quantitative evolution of the game animals for 50 Banloc, hunting domain Lunca Timişului, it can conclude that we can say that the quantitative evolution of the population for the 13 species studied in this case was normal in the studied period there was equilibrium between the populations as an effective effect of the natural and artificial selection.

Also, we noticed that there is a good correlation between the number of individuals from each species and the biogenic capacity of the hunting population studied.

REFERENCES

[1] Bud I., Economia vânatului, Editura Tipo Agronomia Cluj-Napoca 1998.
[2] Cotta V., Badea, M., Micu, I., Vânatul şi vânătoarea în România, Ed.Ceres, 2008.
[3] Dronca D., Ameliorarea genetică a populaţiilor de animale. Editura Mirton, 2007.