STUDY REGARDING THE QUANTITATIVE EVOLUTION OF THE WILD ANIMALS POPULATIONS FOR HUNTING FROM 17 NADĂŞ AREA, FOREST DISTRICT TIMISOARA, IN 2006-2010 PERIOD

D. Dronca[1], N. Păcală[1], I. Bencsik[1], A. Oprea[3], C. Pascal[2], Mihaela Ivancia[2], Gabi Dumitrescu[1], Ada Cean[1], Alexandra Ivan[1], Liliana Boca[1]

[1]Faculty of Animal Sciences and Biotechnologies, Timisoara, Romania
[2]Faculty of Animal Sciences Iasi, Romania
[3]Forest District Timisoara
e-mail: ddronca@yahoo.com

Abstract

Integration of the Romania in the UE, is imposing a special attention to hunting animals populations. The aim of the present paper is to study the quantitative evolution of the hunting population for the 13th species, in the period 2006-2010, in the hunting terrain 17 Nadăş, from Forest Domain – Timisoara, with an total surface of 9325 ha. The conclusion was that the numeric evolution of the species studied is normal, keeping a balance in between populations as a conclusion of natural and artificial selection. It was also noticed that there is a good correlation between the numbers of individuals from the species studied and the biogenic capacity of the hunting fond studied.

Key words: hunting animals, hunt population, cynegetic

INTRODUCTION

The UE integration of the Romania is imposing a special attention to the populations of wild animals for hunting. 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 Paleolithic 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 hunting populations for 13 animal species, from 17 Nadăş aria in the period of 2006-2010.

MATERIALS AND METHODS

Hunting ground taken into consideration, with a total surface of 9325 ha, is delimited at North by the dirt road from Bencecul de Jos from Băcin valley and Cobolaş hill, at East by dirt road between Tarcoşa hill and Hoţului hill, at South Gearteameş Valley from Ianova towards Stanciova, and at West by communal road between Ianova- Bencecul de Sus and Bencecul de Jos.

In table 1 we present the total surface of the hunting ground of the hunting ground studied divided in categories.

Table 1.The surface of the hunting terrain 17 Nadăş divided into categories

UM	The cynegetic productive surface for:					Unproductive land	Total
	Aquatic animals land	Other hunt species					
	Water length	Forest	Agricultural land	Grazing field	Total		
ha	173	2112	5443	1537	9092	60	9325
%	1.85	22.65	58.35	16.50	97.50	0.65	100

From table 1 it can be noticed that from the total surface of the studied hunting ground of 9325 ha, the water hunting has an aria of 173 ha, which represents 1,85% while other species of hunt have a total surface of 9092 (97,50%), from which arable 5443 ha (58,35%), grazing 1537 ha (16,50%), and forest 2112 ha (22,65%). Cynegetic unproductive surface represents 0,65%, 60 ha respectively.

The study presented in this paper is aiming to evaluate the number of animals from this hunting ground in the period 2006-2010, because without this information a rational hunt of the animals would not be possible. Knowing the effective of animals serves for evaluate the annual number of animals that can be hunted and for 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 de degradation of the trophies and the damages in forest an agricultural cultures. This is why this action to be made with responsibility by the persons that know well the terrain and the biology of the hunted animals.

RESULTS AND DISCUSSION

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

From of table 2, is can be noticed that at 7 species from the 13th studied, the number of individuals from spring maintained for all the studied period. The species that maintained constant were Wildcat (*Felis silvestris L*) 6 individuals, Red Fox (*Vulpes Vulpes L*) 20 individuals, European pine marten (*Martes martes L.*) 5 individuals, Mustela (*Putorius putorius L.*) 5 individuals, Least Weasel (*Mustela nivolis L.*) 5 individuals, Muskrat (*Ondatra zibethica L.*) 25 individuals and Grey Partridge (*Pedrix pedrix L*) 15 individuals.

In contrast Red Deer (*Cervus elaphus L.)* registered in 2006 an effective of 75 individuals, which grows in 2007 at 80 individuals (+6,66%), after which it is maintained relatively constant all the rest of the studied period 2008 – 2009 – 2010.

Table 2. The evolution of the spring effectives from the 17 Nadăş hutting terrain, in the period 2006-2010

Specie	2006	2007	2008	2009	2010
Red Deer (*Cervus elaphus L*)	75	80	82	80	80
Fallow Deer (*Dama dama L*)	75	55	78	75	77
Roe Deer (*Capreolus capreolus L*)	70	75	76	78	80
Wild hog (*Sus scrofa L)*	60	65	60	55	50
European hare (*Lepus europaeus P.*)	607	643	686	550	458
Wildcat *(Felis silvestres L*)	6	6	6	6	6
Common Pheasont (*Phasianus colchicus L*)	434	502	506	540	580
Grey Partridge (*Pedrix pedrix L*)	15	15	15	15	15
Red Fox (*Vulpes vulpes L*)	20	20	20	20	20
European Pine marten (*Martes martes L*)	5	5	5	5	5
Mustela (*Putorius putorius L*)	5	5	5	5	5
Least Weasel (*Mustela nivalis L*)	5	5	5	5	5
Muskrat (*Ondatra zibethica L.*)	25	25	25	25	25

Fallow Deer (*Dama dama L.)*, realized a decrease with 20 individuals from 2007 compared with l 2006 from 75 individuals to 55 respectively, which in relative values represents 26,6%, but it recovered this los in 2008, when it gets to a total number of 78 individuals, that remained constant on the next studied periods (75 individuals – 2009; 77 individuals – 2010).

Roe Deer (*Caproleus caproleus L)*, registered in 2006 an effective of 70 individuals, effective that evolved during all studied period, so in 2010 it reaches 80 individuals which represents an increase with 14,2% (2007-75; 2008-76; 2009-78).

For Wild hog (*Sus scrofa L*), if in 2007 it registered an increase of 5 individuals, from 60 to 65 respectively (+8,33%) on the next studied periods it's number drops (2008-60; 2009-55), so in 2010 it reaches 50 individuals (-23,07%).

The European hare (*Lepus europaeus P.*), registered the following evolution of the effective: 607 individuals in 2006, effective that grows in the next 2 years at 643 individuals in 2007 (+5,93%) and 686 individuals in 2008 (+6,68%), after which the effective drops significantly, 550 individuals in 2009 (-19,82%) and 458 individuals in 2010 (-16,72%).

The Common Pheasont (*Phasianus colchicus L.*), starts in 2006 with 434 individuals, effective that registered an increase all over the studied period, so in 2007 the effective is 502 individuals (+15,66%), in 2008–506 individuals (+0,79%), in 2009–540 individuals (+6,71%) and in 2010 it reaches the value of 580 individuals (+7,40%). Al l over the studied period 2006–2010, this specie registered an significant increase of the number of individuals, from 434 individuals in 2006 to 580 individuals in 2010 (+33.64%).

CONCLUSIONS

At the end of the studied period 2005-2009 the quantitative evolution of the hunting animals for Sarlota, hunting domain Timisoara, 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 populațiilor de animale. Editura Mirton, 2007.