

## STUDY REGARDING THE QUANTITATIVE EVOLUTION OF THE WILD ANIMALS POPULATIONS FOR HUNTING FROM CRALOVĂȚ ARIA, FOREST DISTRICT TIMISOARA, IN 2004-2008 PERIOD

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### 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 2004-2008, in the hunting terrain Cralovăț, from Forest Domain – Timisoara, with an total surface of 7673 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 is representing the oldest human occupation, before all others jobs human was hunter and gatherer. As old as man the hunt was perfected with the human and evolved with the development of the society. In this aria man made the first observations, research and discoveries, also the first inventions. After prolonged study of the paleolithic hunters it is known that there were domesticated animals [3]. The discovery of the spear, the bow with arrows, the perfecting of the tools and hunting methods were the first and the 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 constitutes hunting patrimony.

Starting from the year 1948, all over our country hunting terrain become state propriety. From that date, since there was no private propriety large hunting terrain could be established. The management measurements taken are depended 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 [2]. Main developmental conditions and existence are: food, shelter and quiet.

There is considered that the hunt density is optimal when there is a sufficient number of individuals according to biogenic capacity, number that we do not intent to exceed because the animal can cause damage to other economical arias and it also can suffer as a specie because the lack of food, shelter

and because the rapid development 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 Cravolăț aria in the period of 2004-2008.

## MATERIALS AND METHODS

The hunting material taken into account with a total surface of 7673 ha, is bordered at north by Stanciova Hodoș road, at east by Topolovățu Mare-Sustra road and at west by Stanciova-Petrovaselo-Sustra road. 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 Cravolăț divided into categories

UM	The cynegetic productive surface for:					Un productive land	Total
	Aquatic animals land	Other hunt species					
	Water length	Forest	Agricultural land	Grazing field	Total		
ha	125	970	4978	1564	7512	36	7673
%	1.62	12.54	65	20.38	97.92	0.46	100

From table 1 it can be seen that, from the total surface of the land studied (7673 ha) the terrain occupied by the Aquatic animals represents 125 ha (1.62%) while other species have 7512 ha (97.92%) from which agricultural land 4978 ha (65%), grazing field 1564 (20,38%) and forest land 970 ha (12.54%). The cynegetic non-productive surface is 0.46% respective 36 ha.

The study presented in this paper is aiming to evaluate the number of animals from this hunting ground in the period 2004-2008, 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 DISCUSSIONS

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

Table 2  
The evolution of the spring effectives from the Cravolăț hutting terrain, in the period 2004-2008

Specie	2004	2005	2006	2007	2008
Red Deer ( <i>Cervus elaphus L</i> )	20	20	22	25	12
Fallow Deer ( <i>Dama dama L</i> )	-	-	-	-	-
Roe Deer ( <i>Capreolus capreolus L</i> )	48	50	57	70	78
Wild hog ( <i>Sus scrofa L</i> )	25	25	25	30	20
European hare ( <i>Lepus europaeus P.</i> )	1196	924	945	951	904
Wildcat ( <i>Felis silvestres L</i> )	4	4	4	4	4
Common Pheasant ( <i>Phasianus colchicus L</i> )	560	457	500	634	476
Grey Partridge ( <i>Pedrix pedrix L</i> )	25	25	30	30	25
Red Fox ( <i>Vulpes vulpes L</i> )	20	20	20	20	20
European Pine marten ( <i>Martes martes L</i> )	5	5	5	5	5
Mustela ( <i>Putorius putorius L</i> )	4	4	4	4	4
Least Weasel ( <i>Mustela nivalis L</i> )	6	6	6	6	6
Muskrat ( <i>Ondatra zibethica L.</i> )	5	5	5	5	5

From the analysis of the table 2 it can be noticed that at 6 species from the 13 studied, the number of animals remained constant during the studied period. The number of individuals at the species that remained constant in number were 4 for Wildcat (*Felis silvestris L.*), 20 Red Fox (*Vulpes Vulpes L.*), 5 for European Pine Marten (*Martes martes L.*), 4 for Mustela (*Putorius putorius L.*), 6 for Least Weasel (*Mustela nivalis L.*), 5 for Muskrat (*Ondatra zibethica L.*).

At Red Deer (*Cervus elaphus L.*) there was noticed in 2007 an increase with 25% compared with the year 2004, but in the year 2008 we noticed a decrease with 52%. It is noticeable that, compared with other hunting domains in the neighborhood, the studied terrain has the specie Fallow Deer (*Dama dama L.*).

The specie Roe Deer (*Caproleus caproleus L.*) which at the start of the studied period (2004) had a number of 48 individuals registered an increase in number, so at the end of the studied period registered 78 individuals, meaning a 62.8% increase.

The Wild hog (*Sus scrofa L.*), has a constant number of individuals (n=25) in the years 2004, 2005 and 2006, in 2007 there is a 20% increase, but during 2008 it registered a decrease of 33.3%.

For the specie European hare (*Lepus europaeus P.*) registered the following evolution: 1196 in the year 2004, it decrease at 924 in the year 2005 and the number remained fairly constant in the next year 2006 (n=945), 2007 (n=951) and in 2008 (n=904).

The Grey Partridge (*Perdix perdix L.*) registered significant differences during the 5 year period, had a main number of individuals of 25.

Common Pheasant (*Phasianus colchicus L.*) registered a number of 560 individuals in 2004, in 2005 the number is 457 a 18.4% decrease, in 2007 the number is 634 an increase of 38.7%, but in 2008 the number of individuals is 476 a decrease of 24.3%.

## CONCLUSIONS

At the end of the studied period 2004-2008 the quantitative evolution of the hunting animals for Carlovaț, 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.

It also there we noticed that there is a good correlation between the number of individuals from each specie and the biogenic capacity of the hunting population studied.

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