



Original Contribution

HUNTERS' ATTITUDE TO SOME PROTECTED MAMMALS AND BIRDS IN BULGARIA

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ABSTRACT

Hunters appear to be the connection between law and wildlife. The aim of the study was to reveal how hunters approach their duties and responsibilities concerning protection of mammals and birds. Questionary survey was carried out on 124 hunters, members of "Hunters and anglers societies" in the towns of Varna, Stara Zagora and Plovdiv. Our survey concern: buzzard (*Buteo buteo*), long-legged buzzard (*B. rufinus*), rough-legged buzzard (*B. lagopus*), goshawk (*Accipiter gentilis*), eagles (*Aquila* spp), Hrrriers (*Circus* spp.), Falcons (*Falco* spp.), geese - *Anser erythropus*, *A. faballis*, *A. anser*, *Branta ruficollis*, cormorants - *Phalacrocorax carbo* and *Haliastur pygmeus*, great white egret (*Egretta alba*), little egret (*E. garzetta*), purple heron (*Ardea purpurea*), grey heron (*A. cinenea*), otter (*Lutra lutra*), weasel (*Mustela nivalis*), badger (*Meles meles*), roe deer (*Capreolus capreolus*). Mainly otter, badger, herons and cormorants are the objects of illegal hunt.

The following reasons for breaking the law were found: incorrect idea of a species place in the ecosystem; misunderstanding of the animal behavior reactions and believing in prejudices, and beliefs about some of the species; emotions outweigh the law and sometimes feeling of impunity. Great number protected mammals and birds as well as some others, which are under special hunting restrictions are objects of poaching.

Key words: hunters; mammals; birds; poaching; "Bern convention"; "Bon convention"

INTRODUCTION

A number of factors influence animal welfare in nature: habitat conditions, presence of food, feeding competition, outland species introduction, pollution, radioactivity etc. The hunt is an important factor for the game prosperity. Poaching could seriously influence the population and could cause extinction of the species. Hunt could have a positive or a negative effect on the game life. Hunters appear to be the connection between law and wildlife. We tried to reveal how hunters approach their duties and responsibilities concerning protection of mammals and birds and if they have an adequate attitude to law. The law controlling protection and use of game is "Law for hunting and protection of the

game" (1). It was built in accordance with the "Biodiversity Act" (2). Most of species investigated are included in "Bulgarian Red Data Book" (3). They are all objects of the European right. Most of the animals searched are listed in appendices of the "Bern convention" (4) and the "Bon convention" (5).

Many authors of books for candidate hunters describe the main law positions (6, 7, 8). They also reveal the biology of protected species and those which are hunting objects. The examinations for the right to hunt have been based on the book "Right of hunt" (9) for the last three years. The best description of animal biology including habitat distribution, feeding behavior, reproduction is given by (6). Also the way of distinguishing birds in the field conditions is given. Other authors (10) describe the difference in plumage songs and character of flight for the species. Systematic study of mammals, their identification and features of biology are given in details by (8).

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It seems reasonable to assume that ability of old and new literature is enough for theoretical training of candidate hunters.

The aim of our study is to reveal if the hunters follow the law in their activity and which are the factors that influence their behavior.

MATERIAL AND METHODS

Questionary survey was carried out on 124 hunters, members of “Hunters and anglers societies” in the towns of Varna, Stara Zagora and Plovdiv.

The questionary form included eleven questions:

Do you reckon harmful and would you kill the following animal species?

1. Birds: Buzzards: *Buteo buteo*, *B. rufinus*, *B. lagopus*
2. Goshawk: *Accipiter gentilis*
3. Another birds of prey. Eagles: *Aquila* spp.; Harriers: *Circus* spp. and Falcons: *Falco* spp.
4. Geese: *Anser erythropus*, *A. faballis*, *A. anser* and *Branta ruficollis*.
5. Cormorants: *Phalacrocoran carbo*, *Haliator pygmeus* and Herrons: *Egretta alba*, *E. garzetta*, *Ardea purpurea*, *A. cinenea*
6. Otter: *Lutra lutra*
7. Weasel: *Mustela nivalis*

8. Badger: *Meles meles* (out of hunting season)
9. Roe deer: *Caprecolus caprecolus* (out of hunting season)
10. Do you think that course in hunting gives you enough knowledge of game biology?
11. Do you reckon that the law of hunt and saving wildlife is observed?

Question №10 highlights the hunters’ opinion for preliminary training.

Question №11 reveals the attitude of hunters toward the law.

The study has been conducted for two years’ period 2006-2007. The questioned hunters were selected of random. Some of them were clients in taxidermy laboratories in the three towns; others were participants in traditional hunter fairs at the beginning of hunting seasons 2006 and 2007.

Some of the reasons for illegal shoot were searched and discussed.

RESULTS AND DISCUSSIONS

The results of our study are shown in **Table 1.** as a number of positive or negative answers to every question and as percentage occurrences.

Table 1. Results from inquiry.

Questions	Answers		Answers in %	
	Yes	No	Yes	No
Do you reckon harmful and would you kill the following animal species?				
Birds: Buzzards: <i>B. buteo</i> , <i>B. rufinus</i> , <i>B. lagopus</i>	30	94	24.2	75.8
Goshawk: <i>A. gentilis</i>	62	62	50	50
Eagles: <i>Aquila</i> spp., <i>Circus</i> spp., <i>Falco</i> spp.	45	79	36.3	63.7
Geese: <i>A. erythropus</i> , <i>A. faballis</i> , <i>A. anser</i> and <i>B. ruficollis</i> .	43	81	34.7	65.3
Cormorants: <i>Ph. carbo</i> , <i>H. pygmeus</i> ; Herrons: <i>E. alba</i> , <i>E. garzetta</i> , <i>A. purpurea</i> , <i>A. cinenea</i>	38	86	30.6	69.4
Otter: <i>L. lutra</i>	72	52	58.1	41.9
Weasel: <i>M. nivalis</i>	49	75	39.5	60.5
Badger: <i>M.meles</i> (out of hunting season)	55	69	44.4	55.6
Roe deer: <i>C. caprecolus</i> (out of hunting season)	12	112	9.7	90.3
Do you think that course in hunting gives you enough knowledge of game biology?	71	53	57.3	42.7
Do you reckon that the law of hunt and saving wildlife is observed?	25	99	20.2	79.8

The results concerning the hunters’ attitude towards *Buteo* spp. showed that 24,2% of the hunters don’t abide the shooting prohibition. The reasons for that opinion are:

“Buzzards attack and exterminate game birds, mainly pheasants and partridges in winter”.
 “A great number of young hares (*Lepus capensis*) also became buzzards’ prey”.

Only *Buteo lagopus* had been game for many years. *Buteo rufinus* and *B. buteo* have been protected by the law (11, 12).

Since 2000 (1) the status of *B. lagopus* has been changed, it became a protected bird. The fact that for 52 years it has been considered as a pest is the reason for shooting all Buzzards group. They are difficult to be distinguished.

Nowadays, the hunters cannot understand other aspect of Buzzards biology except unproved harm to ground nesting birds (Galliformes). It was a reason for almost 25% of the hunters' questioned to kill buzzards despite the law restriction.

Half of the questioned people shoot *Accipiter gentilis*. Negative attitude towards this bird was shared and discussed for a long time in game literature as (12) wrote that Goshawk is the most harmful bird, it preys successfully partridges, pheasants, red-legged partridges, young hares. According to the old law of hunt (1948) (13) hunters had been obliged to shoot these birds.

Discussing with hunters we found out that negative attitude to this species is determined by one more factor with great importance – the village way of life. The people who leave there expressed an opinion that hens, ducks, and pigeons were defenceless in a case of a gas-hawk attack.

More disturbing fact is that a big part of hunters (36,3%) would shoot birds of prey as: eagles, harriers and falcons. In our opinion this negative attitude toward the group of birds of prey is inexcusable. We didn't obtain explanation about their motivation for this behavior.

Almost 35% of the inquired people would shoot any goose species: *Anser erythropus*, *A. anser*, *A. fabalis* or *Branta ruficollis*. The practice in taxidermy labs in Stara Zagora, Varna and Plovdiv shows that sometimes *A. erythropus* was shot and not so often *A. anser* and *Branta ruficollis*. It is difficult to distinguish *A. albifrons* which is a hunting object from the other protected species. We consider that violation on these geese is due to vicious practice to hunt in the evening or at nighttime, when distinguishing is difficult. We also consider that the information essential for distinguishing the different species shown in the book "Right of hunt" (9) is not complete.

More detailed information about identification based on silhouettes, wing size, characteristic of flight, body size and plumage is given by (6). We conclude that good training of candidate hunters can result in law protection.

Many of the questioned hunters (30, 6%) wouldn't spare fish eaters: cormorants and herons. They have always been under law protection. Negative attitude correlates with their diet. We could summarize all the opinions:

"Cormorants and herons are harmful to fish farming and to angling".

More than a half of the hunters (58%) have a negative attitude to the otter. It has been reckoned as a pest for a long period. Its extermination has been provoked in different ways: waylaying, trapping, using spatial nets (12, 13). It was found that 95% of the reasons for otters' high mortality are of anthropogenic origin (14). The most significant cause of death recorded for the otter in southern Bulgaria was poaching (15). The otter is the most endangered from all species, objects of our study. The main reason for this is the opinion that otter harms fish farming.

Our results show that 39,5% of hunters would kill weasel (*Mustela nivalis*) because of wrong attitude based on great number of myths and superstitions. The following opinions were expressed:

"This animal is poisonous"; "Weasels braid horse manes".

The fact that weasels attack and kill poultry and small rabbits is of great importance for the humans' negative attitude. The brain and the blood of their prey are delicious for weasel, as for another mustelids. Some skillful hunters gave an opposite opinion, plead for this species.

According to the (1) the hunt of badger is limited from 01.08. to 28.02. Our enquiry shows that 44,4% of hunters break the law and they are willing to shoot it all the year round. After conversations with people we concluded that neither harmfulness, nor usefulness for farming is a reason for their negative attitude to badgers. The main reason is its importance as a source of hunting emotions, especially for young hunters. Despite prohibition for using dogs it is widely used in practice. The fight between dog and badger is a source of distort emotion, close to brutality. Watching and

enjoying animal's fight becomes so big that they start using different kinds of gas, participants begin digging the set, setting more dogs against the badger and the hunt turns into a battle. To avoid the human addiction to this hunting method, it is necessary to be explained to young hunters that hunting includes ethics to the game. It is possible to be done at the time of teaching for hunting license. Some skillful hunters avoid this method of hunt because they are afraid that their dogs might be buried alive in the tunnels of the set.

Some opinions against badger's activity were expressed:

"The badgers are digging holes in the people gardens". They damages melons and watermelons."; "The badger preys on hare's litters, eggs of nesting on the ground birds."

Only 9,7% of the hunters would kill roe deer out of allowed special hunting days.

A little more than a half (57,3%) of the questioned people reckon that they obtain enough knowledge during the time of their hunting course. They think that this is enough to get a license. The rest (42,7%) think that the course is not complete and it doesn't make clear what the biology of game and mammals and birds is. In reality there is no hunting course with lectures and people receive books for self-education. There is no contact between lecturers and students. As a result, a great number of questions concerning the influence of the game on agriculture and forestry are not answered. We think that it is necessary real lectures with participation of wildlife protection organizations to be organized. Their specialists could explain to hunters the importance of the birds for the ecosystems, their place in habitats and to talk about their protective status.

The answers to the question: "If the law for hunt and protecting wildlife is kept as a whole shows that 79,8% of the hunters reckon that it is broken and only 20,2% reckon that I is followed.

It is reasonable to assume that this opinion is real evaluation of the situation, bearing in mind the anonymity of the enquiry.

CONCLUSION

Mainly otter, badger, herons and cormorants are the objects of illegal hunt.

The following reasons for breaking the law were found - incorrect idea of a species place in the ecosystem; misunderstanding of the animal behavior reactions and believing in prejudices and beliefs about some of the species; emotions outweigh the law and sometimes feeling of impunity.

Great number protected mammals and birds as well as some others, which are under special hunting restrictions, are the objects of poaching.

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