

**Wolf Study and Conservation Program**

# **Wolf Analysis and Education About Large Carnivores**

**annual report, 2004**

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**By:** Elena Tsingarska – Sedefcheva, Alexander Ducov, Nina Kirova, Kalina Tzvetkova

**Photos:** Elena Tsingarska – Sedefcheva, Alexander Ducov, Alexandra Kirova

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## **Introduction**

Another busy year is passing... In such moments you turn back. And if you can see something done, something achieved, some good results which have come out, you are happy. Even if not everything was done, you know you tried hard and worked without giving up. This is the case with the Wolf Study and Conservation Program in 2004. We did not achieve everything we wanted. Many things we could not do. But we know we worked almost permanently, making efforts to do our best. Certainly, after this hard work there are good results

## **Acknowledgments**

I am sure, if we could say to the wolves in Bulgaria, who is supporting financially our efforts to ensure better living conditions for them, they would be as grateful to Bernd Thies Foundation, to EURONATURE and to the Anglian Wolf Society, as we are. We are thankful to the Ecovolunteer Program, through which a lot of volunteers visited again the project this year, assisted us and supported us.

Our Polish colleague the biologist Malgorzata Pilot, came with more results of DNA analysis on Bulgarian wolves. We are very thankful for this. These results are one of our strong arguments for wolf conservation in this country.

We are very thankful to SEMPERVIVA Society and especially the Karakachan breeds conservation project team, for their kind permission to use their project base in Pirin Mts.

Our wolf Vucho is already a big wolf. However, when pupils or other people visit him he shows how gentle is the wolf nature when it deals with friends. He is a real ambassador wolf. Thanks Vucho!

## **The wolf in Bulgaria**

The general negative opinion towards this species is being maintained by hunters. According to the official wildlife counting in spring of 2004 wolves in Bulgaria are more than 2200. Wild ungulates are decreasing in numbers during the last 15 year, livestock in the whole country is decreasing in numbers, but the wolves are actively reproducing and increasing their numbers!?! Our team doesn't believe this. That's what we want to prove.

From the National Forestry Board where the official information about game is stored we got information that about 700 wolves have been killed in 2003. For 2004 we still do not have the complete number. We are not sure if this number is accurate or even if it is real. But it is a fact, that after the price for a killed wolf was increased from 25 leva to 100 leva (= 50 EUR) the number of killed wolves sharply increased in contrast to the previous years when this number was about 200 – 250 wolves per year. One of our main goals in improving the species legal status was to work for abolishment of this price. However, it is not easy (or even possible) at the moment because the common opinion is that the wolf number is increasing. We first should prove that this is not true and then a lot of other positive changes will come as a follow up. At the moment we are completing a booklet with all the significant results of our work since the beginning of this project to date. It will be published in Bulgarian and will be disseminated mainly in all the structures of the National Forestry Board, the hunting organizations, the authorities of the Ministry of Environment, Institutes, Universities, etc.

In the coming winter (2004/2005) we intend to make alternative wolf number counts in the two study areas. With this we would like to prove again that the official wolf number is incorrect.

Elena Tsingarska participated in a conference, about the National hunting strategy and its future entering the European Union, organized by the National Forestry Board. The Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora and the Council Directive 97/62/EC

adapting to technical and scientific progress the Directive 92/43, were among the most discussed documents. Hunters are literally scared that their rights will be limited in the conditions of respecting these directives. As hunting societies usually do not inform themselves about wildlife conservation documents, they were informed by a representative of the Ministry of Environment. Elena Tsinagraska and a representative of another NGOs took the opportunity to remind the hunting societies that they should respect nature and laws. It was also explained to them again that the bear is completely protected species according to all national and international laws (the bear is very much discussed in these circles, as they can't accept that it is forbidden for them to hunt bears). Unfortunately, the above directives don't say much about wolf protection in Europe, so we will have to fight on National level for improvement of its legal status. Never mind, it was mentioned to them that serious studies are in process and they show that the wolf population in Bulgaria is not exactly in the status they consider is. Coming out with the results step by step we will be attacking their incorrect attitude and policy towards the species and will "fight" for better conservation strategies for wolves and all large carnivores species. In this aspect the WSCP team intends to propose such a strategy about the wolf when sufficient data are collected as arguments. A proposal for Bear studies was submitted to a the Dutch Pin Matra program for financing. We are convinced that such a project should start because there is no serious scientific base which shows that the brown bear should be really protected in Bulgaria. We believe so but we have to prove it. Generally, the large carnivore species have always been neglected in this country, hence their studying is scarce.

### **Main priorities of the Wolf Study and Conservation Program**

- Analysis of the species status and population trends, data collection about wolf biology and ecology;
- Improve the conditions for co-existence of wolves and humans, decreasing the conflict between them;
- Public awareness and education about large carnivores of Bulgaria;
- Lobby for improvement of species legal status. Elaborate and propose a wolf conservation strategy.

### **Project infrastructure**

The Wolf Study and Conservation Program is still using the project base of SEMPERVIVA Society for the needs of their Karakachan breeds conservation project. The station is located in the village of Vlahi, which is in the foot of Pirin Mts. The teams of the two projects work in cooperation and help one others in the activities.

The wolf project team owns an off road car, purchased with the support of Bernd Thies Foundation, however we are looking for possibilities to supply the project with another vehicle, as the intensive field work and the very bad mountain roads, amortized our present car. Additionally, since the study areas became two it is absolutely impossible to work effectively with one car.

In 2004 we had to limit even more the number of our permanent staff. The reason is the insufficient funds for human labor. So, this year the team of permanently working people on the project was three.

Alexandar Dutsov - PhD student in the Institute of Zoology.

Nina Kirova - student in the Sofia University, Biology Faculty.

Kamen Krastanov – student in law.

Elena Tsingarska - Sedefcheva - MSc biologist. Project leader.

I could say we have a fourth member, because he is always around and helping in many cases, when we need advice and assistance in things we can't solve ourselves. This is Sider. Being partners with SEMPERVIVA Society, in the project of providing shepherds with Karakachan dogs we have a lot of common activities with Sider, who is SEMPERVIVA's chairman. But he helps with advice about many other questions and being a professional artist he actively participates when a public awareness material has to be designed. He is also one of those who lead pupil groups when they visit us in Vlahi and gives them information about large carnivores and our work.

Since the end of 2003 and in 2004 we had the first student from the Biology Faculty in Sofia. Silvia has been working on wolf diet for her master degree. She spent some months with our team, to learn about the topic. She did preparation of big number of scats for analysis and also did analysis under the supervision of our colleague Alexandar.

We intend to attract more students during the coming year. They can do their thesis on the project if they want, but they will be also assisting us in the field work and other activities. There are already some people who are interested to do snow-tracking with us.

### **Study areas**

This is the third year of doing wolf analysis in two model areas. This is needed with the purpose to have data from at least two different types of wolf inhabited areas in the country. Thus comparison of the collected data can be made and the species status in different areas can be observed. Then extrapolation of data can be done for the whole country. The main differences of the two study areas Kraishte and Pirin Mts. are the following:

- Kraishte is low mountainous area, consisting of number of small mountains with large valleys between them. Pirin Mts. is steep, high mountain of alpine type.
- Kraishte is unprotected area, hence there is intensive hunting and the wolf is hunted all year round. Big part of Pirin Mts. is a National park, where no hunting is allowed.
- Kraishte is located in Middle West Bulgaria, while Pirin is located in South West Bulgaria. Therefore, there are differences in climate, vegetation and wildlife in the two areas.

### ***Kraishte area***

The whole area of Kraishte is about 1000 sq. km. Natural forests in the area are deciduous (beech and oak trees). However, these forests have been cut in a big part of the area and have been replaced by pine plantations (*Pinus nigra* and *Pinus sylvestris*). There are also large natural open or bushy territories, between the forested parts. The macromammalian fauna consists of martens, badger, hare, otter, golden jackal, wild cat, wild boar, roe deer. In March 2003, our team discovered that the lynx *Lynx lynx*, which has been extinct from the country since 1940s is recovering the area from Eastern Serbia, where reproduction of a small population was proved. If the lynx manages to populate the area successfully there will be a second large carnivore species, which would be wolf competitor for food.

Human population and wildlife in Kraishte share almost same areas, since villages are located everywhere in the valleys or the slanting slopes. However, human activities in the forests are slightly decreasing, because number of people in those villages is decreasing.

The field work in the frames of wolf analysis is concentrated on about 500 sq. km of Kraishte, where the main wolf habitats are located.

### ***Pirin Mts.***

The west part of the mountain was chosen as a study area (about 700 sq. km). The natural forests in the area have richer diversity of tree species. Deciduous forests cover the low mountain parts. Main species are oak, plane tree. Higher up the beech forms large forests. Gradually, these forests turn to mixed, while in the high mountain zones natural coniferous forests are present (spruce, fir, Macedonian and Balkan pine tree and silver pine). Above the forest zone only dwarf pine and juniper are present and there are large meadows used for pastures. Outside the National park some of the natural forests are cut and replaced with coniferous plantations (*Pinus nigra* and *Pinus sylvestris*). The macromammalian fauna is the same as in Kraishte. One of the differences is that some of the species inhabit only some altitudes and the second difference is that here the other large carnivore species, the brown bear, is present.

Settlements here are only in lower mountain part. Up in the mountain there are only mountain hostels. But, in summer time human activities in the mountain increase, since the livestock is brought up for grazing and a lot of tourists visit the mountain.

## **Wolf analysis**

*By: Elena Tsingarska – Sedefhceva, Alexander Dutsov and Nina Kirova*

### **Field collection of data**

This year we focused our field work on Pirin Mts. as it was still little studied by our team. Collection of all data we do in Kraishte was done here using same methods. Like this the results from the two study areas are comparable.

The work in Kraishte continued, collecting all the regular data, like inquiries to local people about wolf activity to livestock, number of killed wolves, etc. Only the tracking efforts and generally the direct field work wasn't so intensive like the previous years.

### **Tracking**

Wolf tracking was possible mainly during the winter, when there was snow cover and also in muddy periods in other seasons, after raining.

### ***Kraishte area***

Being focused on field work in Pirin Mts., in Kraishte we made some snow-tracking only in January. The winter in Kraishte was good. The climate there is generally colder than in West Pirin. The snow cover keeps longer in Kraishte and the area is more suitable for snow-tracking. The time we spent there doing snow-tracking was useful, because we obtained some additional information about Elovishka pack home range. We already know a territory of about 75 sq. km used by this pack. We consider the actual home-range of Elovishka pack is larger, but collection of more data is needed, by snow-tracking and hopefully radio-tracking.

The strange thing we noticed is that all the trails we followed in January were left from one animal moving alone in the area. We do not have explanation why this is so. During our tracking in winter 2002/2003 we defined at least 3 members of this pack, or possibly 4. We did not get information about wolves killed in the area during the year of 2003, although we collect all the information about killed wolves. So, why in January 2004 we followed only one wolf was mystery for us.

In the beginning of spring 2005 we intend to set traps in the area inhabited by this pack.

During 2004 we did not have any trap lines in Kraishte, because as it was already written we were focused on Pirin Mts. If we prove that this pack is also destroyed by killing wolves, as it happened with Ljubash pack for certain periods during our studies, it will be obvious that the negative human impact on wolves in Kraishte is significant.

#### *Pirin Mts.*

As mentioned above we spent most of our “snow-tracking” time in Pirin. We managed to cover about 1/3 of the study area by intensive snow-tracking and significant results came out of it. We caught and followed the movements of two wolf packs.

During the last year work we already had got quite some data about the first pack, we called Rabish. However, the snow-tracking in the winter 2003/2004 brought us much new information. Although, we still do not know the borders of this pack home-range, we have followed its trails on a large area and have drawn a map, which will help us to complete the home-range during the coming winter. Something else we know about this pack is that it consists of 5 or 6 members in fall – winter 2003/2004. During our tracking we counted 5 members, but some hunters and forestry workers informed us that they had observed trails left by six animals.

The second pack we registered, inhabits an area South of the Rabish pack area. However, we found its trails only few times and could not define much of its territory. We hope during the coming winter we will have better chance with its snow-tracking.

#### ***Simulated howling***

In the summer 2004 we did intensive simulated howling series, with the purpose of determining packs den sites and rendezvous sites and to define if a certain pack reproduced. Although, this method was used by us occasionally during the previous years, we had not done it with the particular purpose of defining den sites. Our experience from several years of work in Kriashte, showed us that wolves there were not very keen on answering simulated howling. This is the reason to leave this method behind and not to use it intensively. However, this year we decided to try in Pirin. It turned out that wolves here are more “talkative”.

This probably has some connection with the fact that in Pirin wolves are much less persecuted than in Kraishte.

We started the simulated howling series before the middle of July. We did it in areas, where we had assumptions about den sites, but also tried in other areas. On 21 of July, early in the morning we heard a wonderful song coming from a valley. It was a response to our “calling”. There were deep voices of adult wolves, but also several puppies’ voices. That’s how we managed to localize the rendezvous site of Rabish pack, which obviously had puppies born in spring. This was not the first and the last answer to our howling, but the clearest one. We could define quite well the distance and the direction from where the wolves howled.

We had answers to our howling also in the area, where the second pack was tracked. However, when doing the simulated howling in that area we always had to be near a river and all the answers (we heard

them twice) we heard, were a bit low. To be 100% sure about that rendezvous site we would like to check it again by other methods and next July by howling.

The third location from where we heard howling answering to ours was also near a river and also needs to be checked for certainty.

In the beginning of August we finished the howling series, because puppies should have become old enough to follow adults on longer distances and it wasn't reliable anymore, to use the method for defining of den and rendezvous sites.

### ***Trapping efforts***

In 2004 we set trap lines only in Pirin Mts.

Right after the snowy period finished, we prepared the trapping equipment and on 26<sup>th</sup> of February we set the first trap line for this year. It was already start of the breeding season and was the right time to use as a bait urine of a female dog in heat. And that's what we did. What was the result?! On 4<sup>th</sup> of March checking the traps in the morning we found one of them closed. Having a closer look I found out that an animal was caught in it, but it wasn't there anymore. Next to the tree where the trap was set, there was a small *Juniperus* bush. Trying to release itself the animal had turned around the bush three – four times and the chain of the trap was tighten up around the bush stem. After probably a long pulling the animal had managed to escape. There was a little blood on the trap jaws and some hairs stuck on the congealed blood. Going back to the base we checked the hairs under a microscope. It was a wolf!! A big shock for us. After two unsuccessful years we had a wolf in a trap and it had managed to escape. A real disaster. Despite of this bad luck we proved our assumptions that big part of the reason for our “empty traps” was the fact that we had to walk every morning along the trap lines leaving our smell. This trap line was the first one, set on a good enough road to be able to check it by four wheel drive car. So, this was the trap line we never stepped on the ground during checking. We also had the possibility to use the horses of SEMEPRVIVA's project and some of the days we checked on a horse back. But never walking! And the result came ... but only half of it.

In March we had a trap line, which we checked almost all the time on horse back only few days walking, but no wolves.

In the beginning of this month there was wolf attack on some sheep owned by a man from our village. Wolves had attacked and killed 6 sheep near the village during the night, because the man left the animals outside. IT was his fault. I went and set traps immediately. While I was still setting the traps, some livestock guarding dogs being near by with a flock for grazing visited the dead sheep. I saw that my possibilities for setting traps are limited and risky, but I still set them. The first evening we had to go and release a livestock guarding dog. The second day I found trap closed but empty. Later I was told that a hunter was walking there with his dog. The dog was caught, the hunter released it, but he did not take the trap, which was amazing. On the third day I found out that wolves had approached pulled a sheep next to which there were two traps, exactly from the opposite direction and had pulled it away from the traps where they had eaten it. After the third there were almost no sheep left for eating and I pulled off the traps.

In April a third trap line checking on horse back. Unfortunately, on the eight day a livestock guarding dog protecting a flock brought to graze near by, stepped in one of the traps. We were called to go and release it. As we saw these shepherds intend to graze the flock in this area we considered it is better to pull of the traps, because the flock was guarded by several dogs. Most probably the dogs would “find” the traps before wolves.

We had the next trap line in May. It was set in the area of the second pack followed by us. It was very far away for our base and to reach it we had to drive 20 km to the traps and 20 km back every morning. The distance was not a problem, but the road we had to drive on was unbelievable. It was hard to call it road anymore. In its last 5 km it was going up on a slope and it was so destroyed by rains, snows etc. that we hardly passed it by our very good off road car. The last part of this road, where actually the traps were set was more than bad. The first day after setting the traps, when we had to put the bait and activate them we decided to try going up along the line by car. We got in such a trouble that we were on the edge of turning with the car. We had to call our friends from the town to pull the car back on the road with another car. This was not good for the traps because there were people walking on the line while we were pulling the car back. Unfortunately, it was impossible to check this traps on a horse back too, because it was far away and riding to the point would have taken us most of the day. So, we walked every morning on the trap line and again we saw the negative result. Three times we saw wolf tracks on the road with the traps. However they had never turn to the traps. We assume this was because there was human smell and they were too suspicious. We finally decided not to set trap lines anymore on places where we can't check them without walking. But a lot of the good places for traps are impossible to go by car, or too far away to go by horse.

Here came the idea to use trap transmitters and to be able to check the traps from a distance on places where it is impossible to go by car or on a horse. Talking to experienced wolf biologists, who did trapping for many years we received contradictory opinions. The most experienced ones, but in North America, told us: "Better don't use transmitters." Some other colleagues, from Europe said: "Better use transmitters." And finally we decided to use, because the experience of our European colleagues was closer to our conditions. We decided to order the transmitters in Bulgaria, because it is cheaper for us. After long conversations with specialists, what exactly we need and what they can achieve, we finally ordered some transmitters and we expect to have them around 25<sup>th</sup> of November. If there is still no snow by then, we intend to set traps immediately.

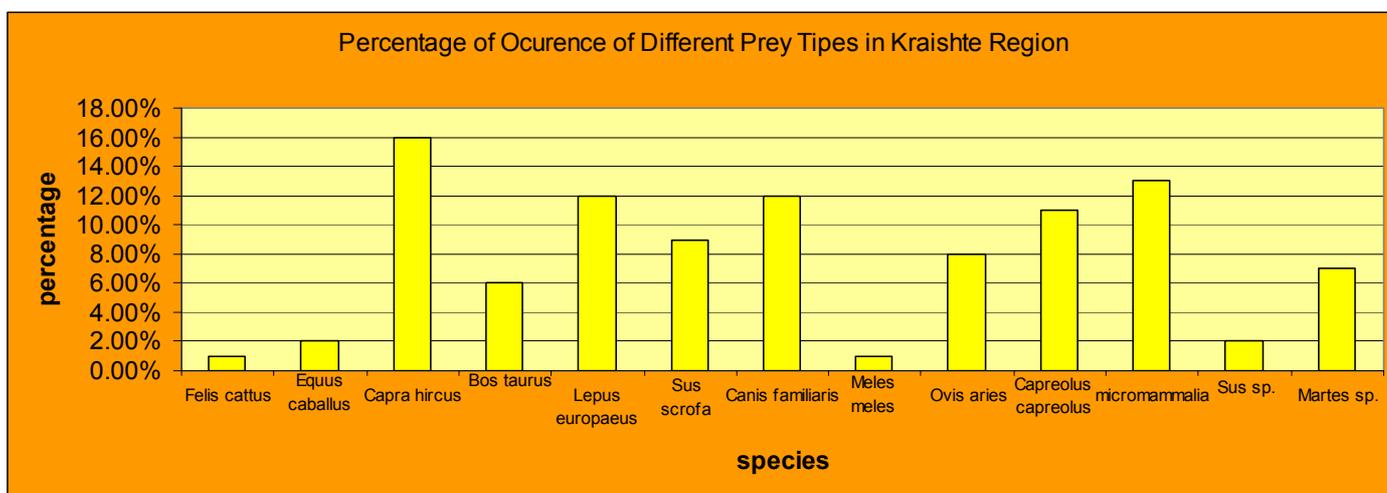
## Collection of scats and wolf diet analysis

By: *Alexandar Dutsov, Elena Tsingarska – Sedefhceva and Nina Kirova*

In 2004 our team collected a lot of scats during the field work. Most of the scats have been analyzed. At the moment the complete work out of the results is being done. However, for the results for the Pirin material is still not separated from the other analysis. From the coming results we can say that the percentage of wild prey in the Pirin scats is slightly higher than that in the Kraishte scats.

Hereafter, we are going to present the results from Kraishte and later also the Pirin results will be sent.

### Graphic 1

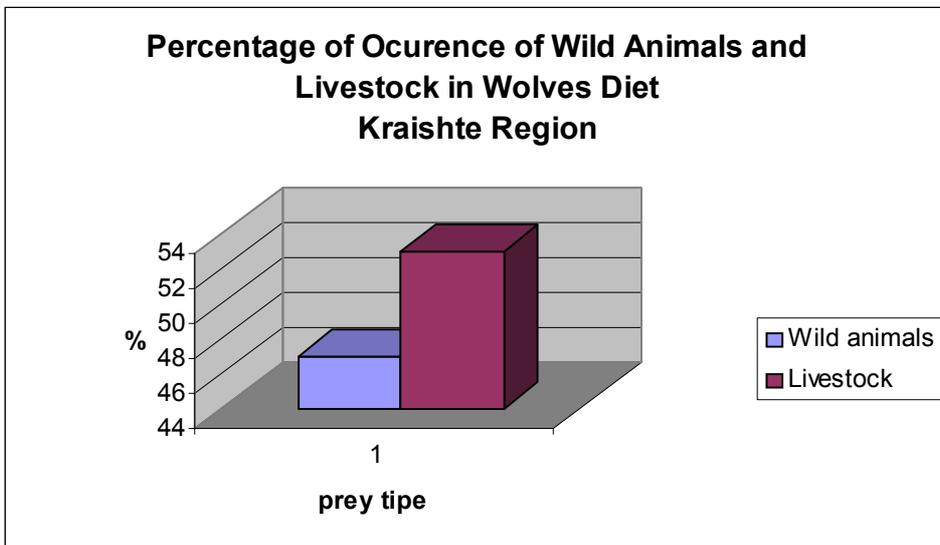


The above graphic shows the result of the compiled data from all the years of wolf diet analysis in the area of Kraishte. These results do not differ very much from the ones from past year. Here we can see again, the big diversity of the wolf prey species and high percentage of domestic animals in its food.

From the wild prey species surprisingly the micromammalia percentage is increased, which is a negative sign. It probably means that the availability of the natural food is even more decreased in comparison with the last years. The roe deer *Capreolus capreolus* and the hare *Lepus europaeus* are still in high percentage, the presence of the wild boar has been slightly increased. The unusual prey species as the badger *Meles meles*, are still in low percentage, but marten species *Martes sp.* occurrence is increased to 7%.

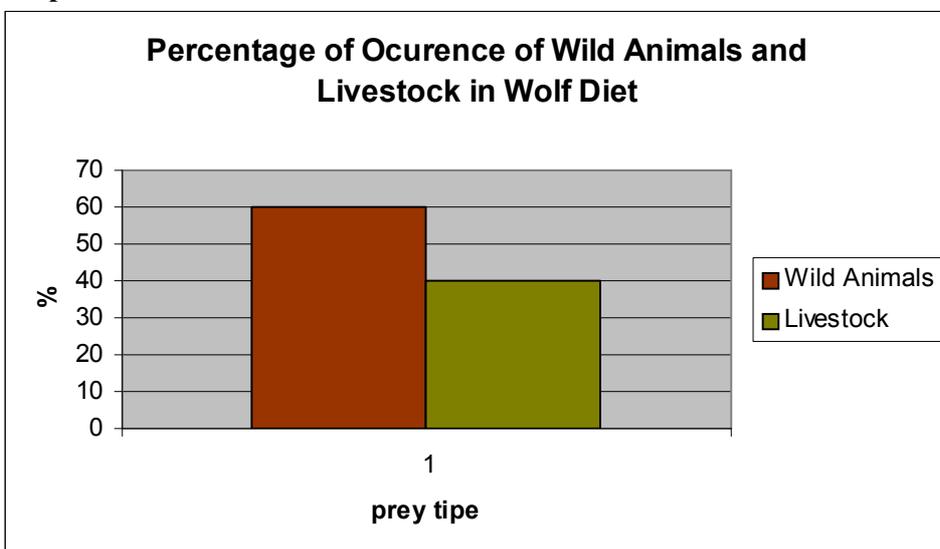
From the domestic prey, the goat *Capra hircus* still keeps the leadership as it was in the last years. The domestic dogs keep also in high numbers as usually in Kraishte. The sheep percentage is a bit lower and the cattle presence is slightly less than the sheep. The rest of the domestic animal species are insignificant part of its diet. The common picture in the domestic animals part of the wolf prey is saved almost identical with the past years.

**Graphic 2**



From Graphic 2 it is obvious that the percentage of domestic animals presence in wolf diet in Kraishte has been increased at the expense of the wild prey percentage. It proves ones again the assumption expressed on the previous page that the natural wolf prey in Kraishte continues to decrease.

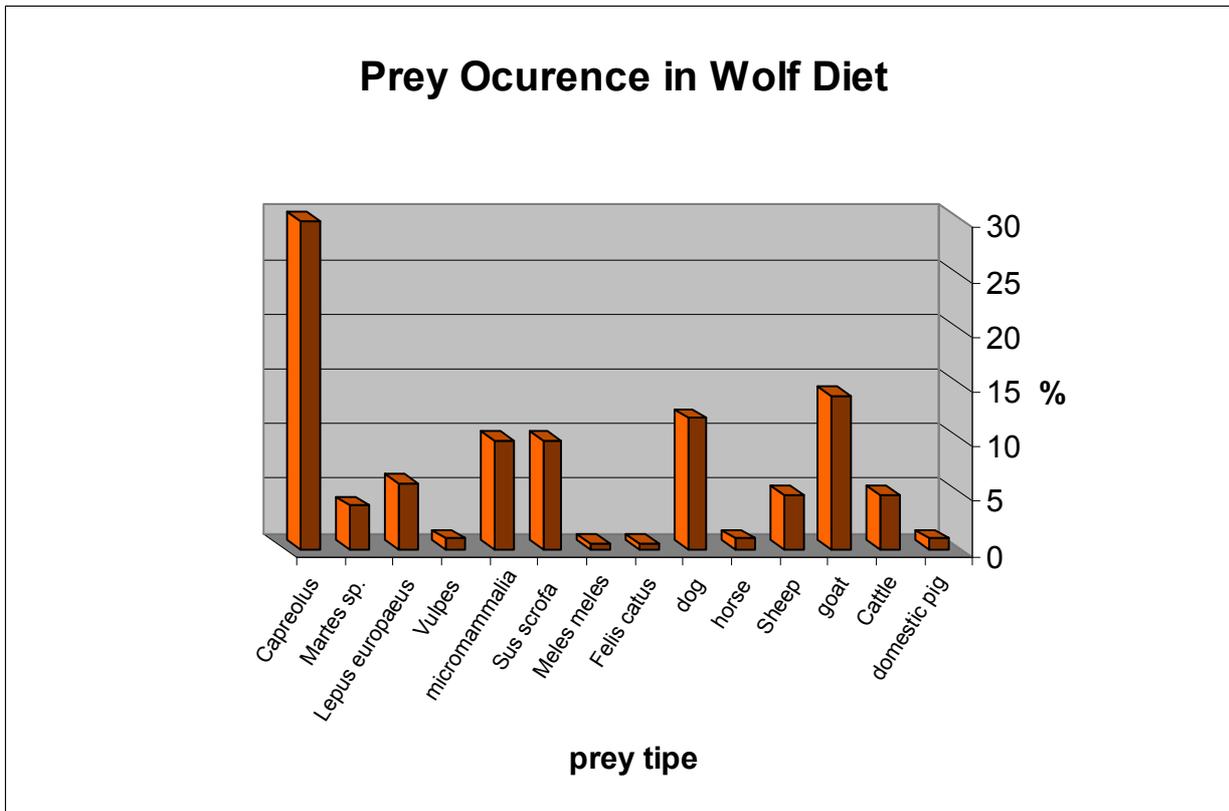
**Graphic 3**



The above graphic of the proportion of wild/domestic animals in wolf diet is from three study areas. These are Kraishte, Pirin and Osogovo Mts. ( Osogovo is on the South – west border of the country). This graphic was prepared in the frames of Alexandar Dutsov PhD work. We use it here to show the significant difference with Graphic 2. In the case of compiling the results from the three study areas those from Osogovo Mts. increase the common percentage of the natural food as in that area the situation differs quite a lot. There is a game breeding station in Osogovo, the roe deer density is higher

that in the other two areas and obviously wolves prey mainly on natural food. Working out the Pirin results independently we are going to show what is the situation there and also compared to the other two.

**Graphic 4**

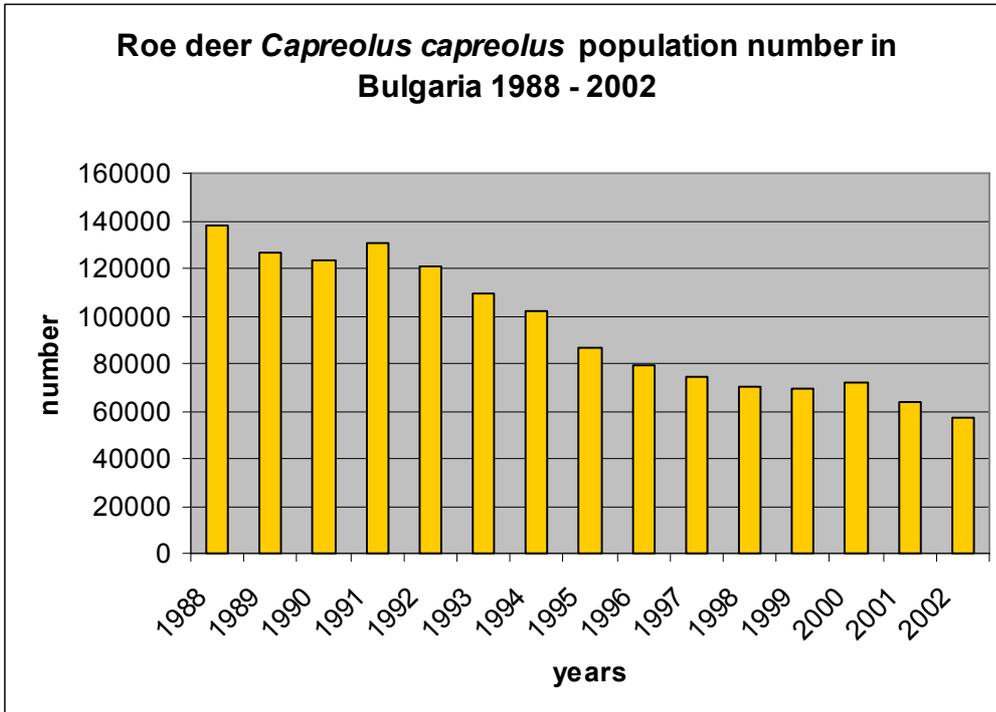


This graphic, which comes from the results from the three study areas too, clearly shows the influence of the data collected in Osogovo Mts. The percentage of roe deer is sharply increased here. The goat is the next in percentage, but around half of the roe deer. The results from Osogovo show that if the natural food is abundant, wolves would not pay much attention to livestock.

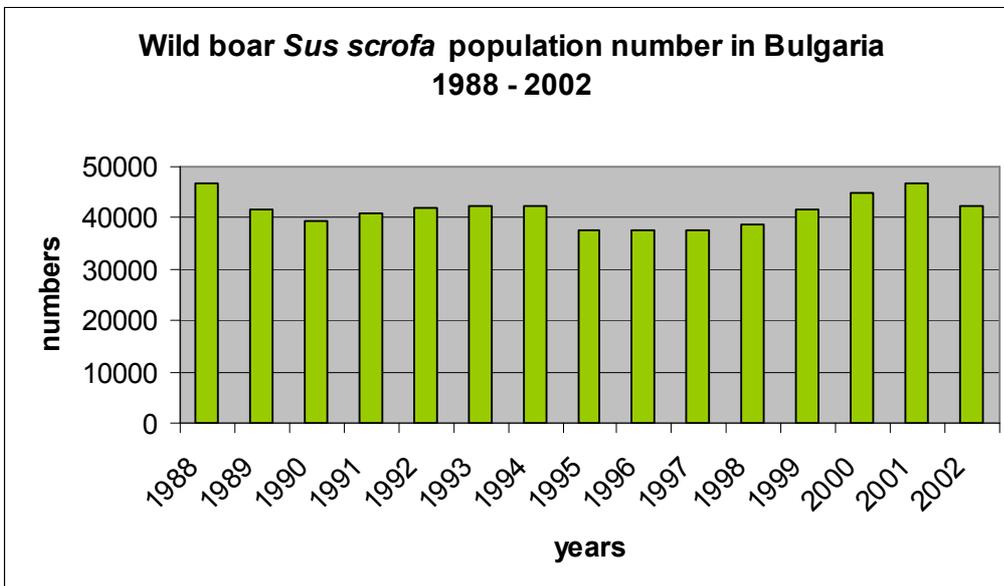
**Trends in wild ungulate numbers in the country**

For information we have presented graphics with the number changes of roe deer and wild boar for the country for a period of 14 years (1988 – 2002). Exactly for the region of Kjustendil Regional Forestry Authority (RFA), where the area of Kraishte is included we managed to get information for 1993 – 1998.

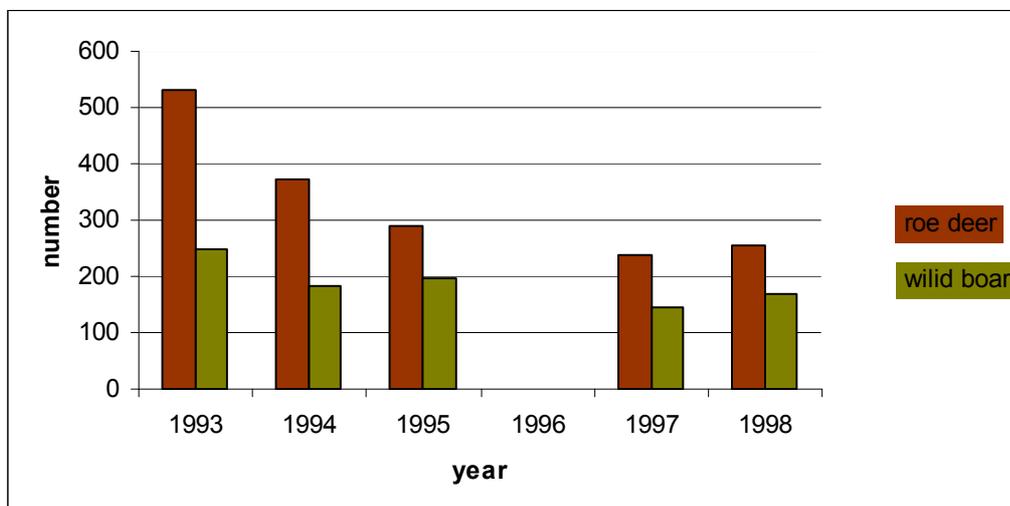
Graphic 5



Graphic 6



**Graphic 7. Roe deer & wild boar number in Kjustendil Regional Forestry Authority 1993 – 1998**



From both graphics “Roe deer number in Bulgaria 1988 – 2002” and “Roe deer & wild boar number in Kjustendil RFA 1993 – 1998” it is obvious that the roe deer is going down year by year. Roe deer was proved to be the preferred natural prey by wolves in the whole country. These results we obtained after conducting an inquiry to all the forestry authorities in 1997 (the results will come out in the booklet in Bulgarian with English summaries and will be sent to all the interested parties). It seems that in Kraishte the situation is same. As soon as the roe deer is decreasing in numbers wolves search for their food preying on many different species.

The wild boar population is more stable on a country level as well as in Kjustendil RFA. However from the graphics with the wolf diet, both in Kraishte and in the three study areas together this species is not presented with high percentage. The probable reasons for that were explained in our past annual reports. There we wrote that possibly one of the main reason for that is the small packs size which is usual in Kraishte.

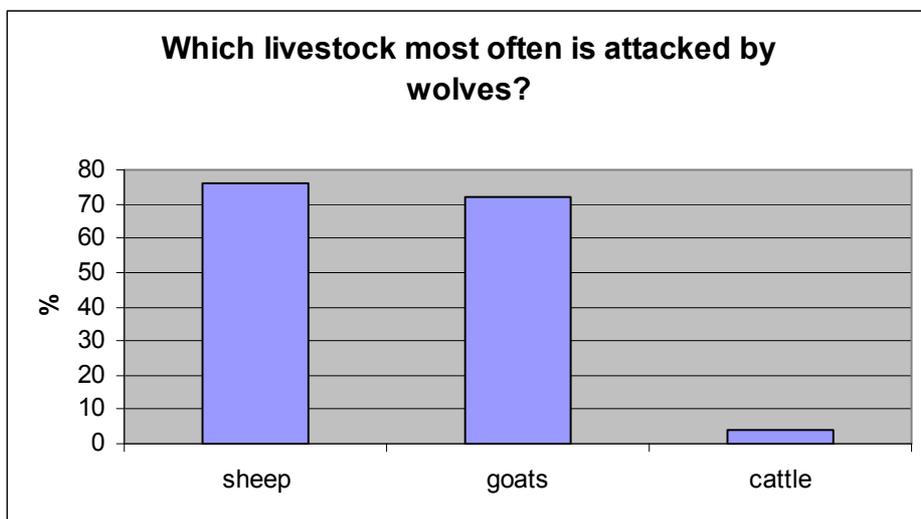
## **Wolf – human interactions**

*By: Nina Kirova and Elena Tsingarska – Sedefhceva, Kamen Krastanov*

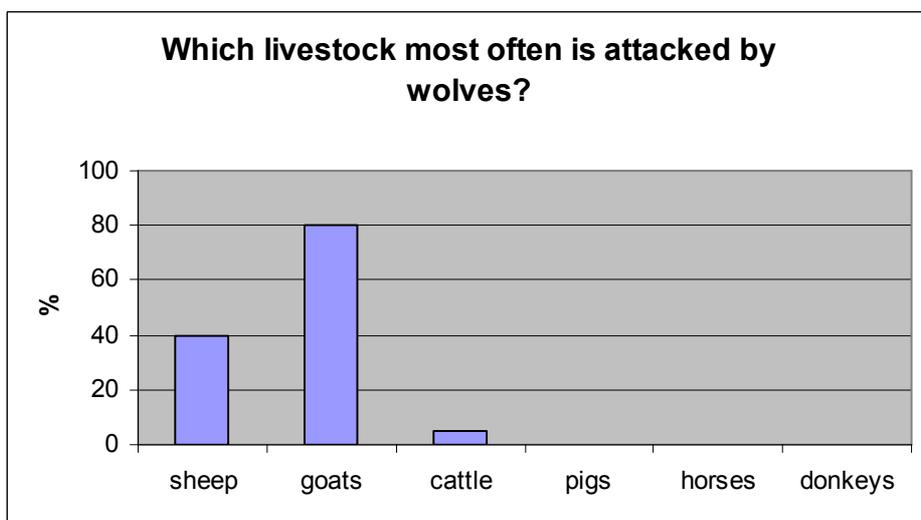
### **Wolf activity towards livestock**

The activity of wolves towards livestock was monitored by the regular inquiries we make every year to local people. Since 2003 we conduct the inquiry in Pirin too. For 2004 we still have not conducted the inquiry as we decided it is much better to do it after the year has finished. Thus we are going to conduct the inquiries in the two study areas in January and will have the complete information at once. Hereafter we are going to present the results of these inquiries for the two areas for 2003.

**Graphic 8. Kind of livestock killed in Kraishte 2003**

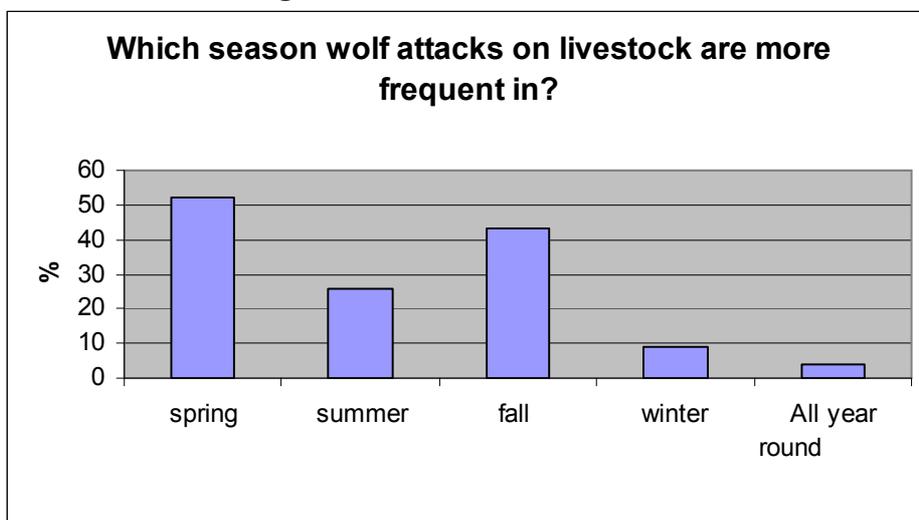


**Graphic 9. Kind of livestock killed in Pirin Mts. 2003**

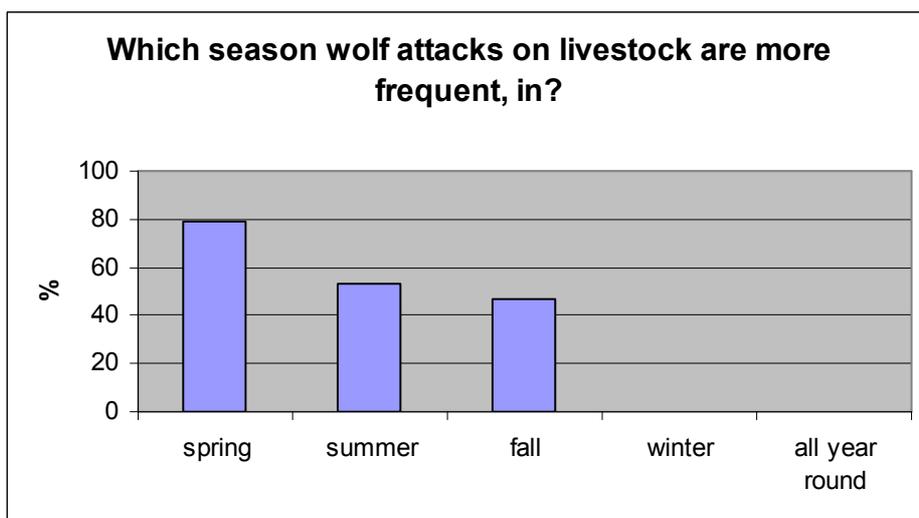


Same three species has been attacked by wolves in the two areas. However, it is a bit surprising to see that in Kraishte the goats percentage is even slightly lower than the sheep percentage. In Pirin goats are much more attacked and killed for prey than sheep. In both areas cattle are a small part of wolf domestic animals victims, although in Pirin there is big number of free grazing cattle. It is explainable, having in mind the size of these animals.

**Graphic 10. Seasonal wolf activity towards livestock in 2003 in Kraishte according to interviewed**



**Graphic 11. Seasonal wolf activity towards livestock in 2003 in Pirin according to interviewed**

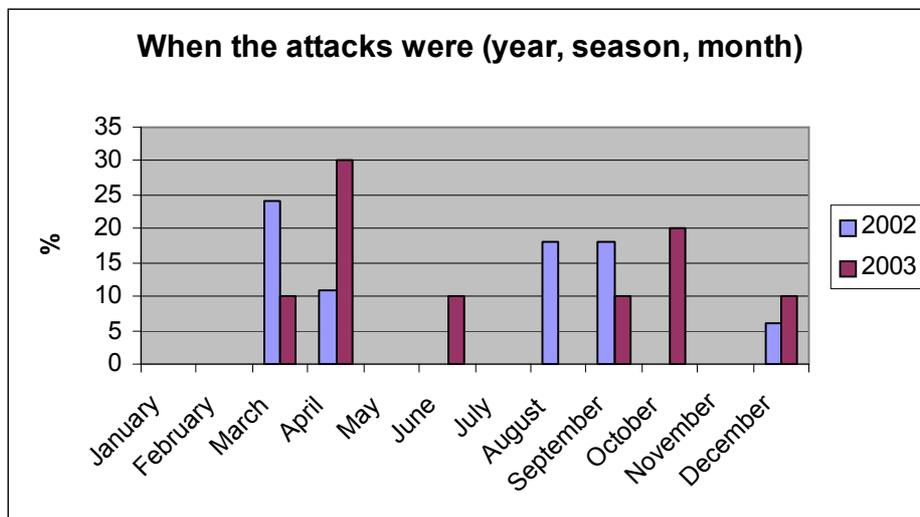


Farmers in Kraishte consider that wolves attack their livestock most often in spring, but also often fall and not so much in summer.

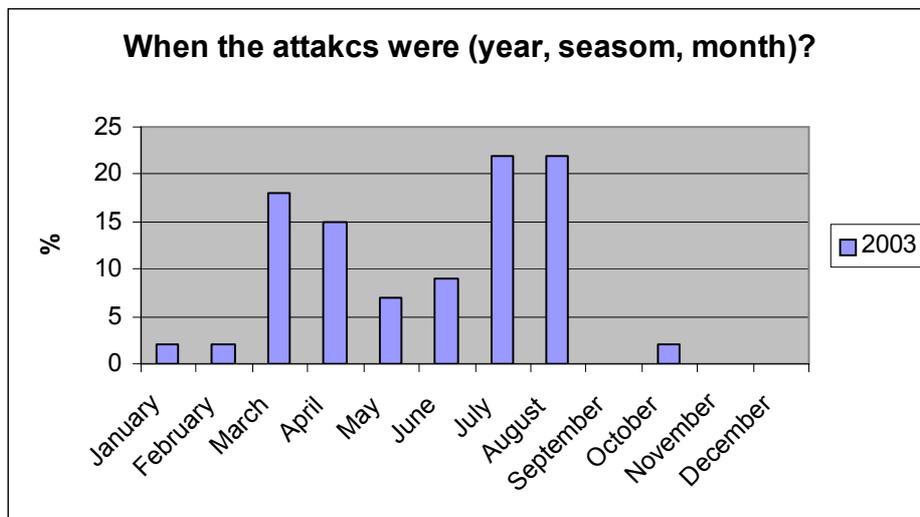
In Pirin 80% of the interviewed say their livestock is attacked by wolves mostly in spring. Summer and fall are considered as a bit less “wolf active” seasons, but still active.

The surprising result is that about 10% of people in Kraishte answer their livestock is taken by wolves also in winter, but in Pirin this answer is 0%. I say surprising because winters in the foots of Pirin are much softer than in Kraishte, with less snow and livestock is taken for grazing in this season. We are to discover why this is so.

**Graphic 12. Seasonal wolf activity towards livestock in 2003 in Kraishte according to actual attacks**



**Graphic 13. Seasonal wolf activity towards livestock in 2003 in Pirin according to actual attacks**



For comparison we worked out the result from the actual wolf attacks for which people reported. The data from our analysis fit to the local people opinion. IT is visible that in Kraishte there are really attacks in winter while in Pirin such are missing. The possible reason for that could be higher lack of natural prey in Kraishte.

In Kraishte our analysis give exactly the same results as the results obtained from the local people opinion.

In Pirin there is difference in the results. Our analysis show that in mid summer the attacks level is highest, while in spring it is slightly less. Differing from people's opinion in autumn we almost did not record wolf attacks on livestock. The reason for these differences is going to be analyzed and probably

decreased when we have more data about the situation in Pirin and after our inquiry in the area for 2004.

### **Human impact on wolves**

We have started to collect some information about killed wolves in the two study areas, but we prefer to present the data after the information is completely collected for 2004. The reason is that wolves are killed most often exactly in the period October – December when the hunting season is open, and if we present some data now most probably they will not be complete (unfortunately).

We can only say, that number of killed wolves is higher in Kraishte again. Human impact on wolves there is higher, but one of the expected results that wolves will stop to attack livestock is not happening.

### **GIS model of the study areas**

*By: Alexandar Dutsov*

Our intention was to complete the GIS models of both working areas until the end of 2004. However, time and fund limits were obstacle to this. It turned out that the GIS specialists work is more expensive. Additionally, as written in the beginning of the report we had to limit our staff, so while our team had to spend in one of the areas it was almost impossible to work in the other.

As a result the GIS model of Pirin study area is almost completed, but for working our the same for Kraishte we will need more time and funds. We consider if we obtain the needed finances we can be ready until May 2005.

### **Pirin Mts.**

Most of the GIS maps made for Pirin Mts. are printed in A4 format just as an example what we already have for Pirin.

The map with the Wolf Signs is also uncomplete on this example. We did it so, because on a map of such a scale a lot of the different signs go over one others and it is impossible to be recognized. So, the map with the wolf signs collected by us in Pirin is just an example how it should look like.

In December our team was educated by the specialists how to work with these maps, how to add all the new data collected and how to get the advantages of this method (analysis, prognosis, etc.)

## **Public awareness and education**

*By: Elena Tsingarska – Sedefhceva, Nina Kirova*

In 2004, our public awareness activities were very much connected with our ambassador wolves. We accepted many visitors, children and adults. Many of them heard lectures about wolves and their unique role in nature.

We gave interviews for a lot of regional and national newspapers and national and regional TV channels.

### **Our ambassador wolves Vucho and Balkan**

In the report from 2003 I wrote about the two wolves Vucho and Balkan.

Vucho was raised by us since he was 11 days old. Now he is perfectly socialized with humans and is very good for contacts with children.

Balkan was an adult wolf, which we took for two reasons. The first one was because we wanted to have company for Vucho, because we did not want to have this social animal living alone. The reason we chose exactly Balkan was, because he was very much relaxed with visitors, not hiding, he was nice looking strong wolf and people could see him, when they visit the enclosure. Unfortunately Balkan died at the end of July, from unknown reason. He spent 10 months in the large nice enclosure together with Vucho and it was obvious that both wolves feel O.K. Balkan had some breathing problems already when we took him from the zoo. Veterinarians there couldn't tell us anything about that. We started giving him medicines given by our vet who saw him. He became better two months after he came to our enclosure. However, during the last month of his life he started having the problems again. Probably this was the main reason of his death. He wasn't young anymore. Nobody knew his age, because he was brought to our Sofia zoo from the zoo of Skopje, years ago. So probably he was also quite old. From his teeth we could estimate approximately an age of 10 - 11 years.

So, Vucho is alone again since the end of July. But this wolf does excellent public awareness work.

### **Visits to the wolves**

In March we brought Vucho to two schools, in two towns in the region of West Pirin. Pupils came out in the school yard. They heard short lectures about wolves and then each of them had the possibility to touch and pet the wolf. They took photos of them with the wolf.

On 22<sup>nd</sup> of April (the Earth Day), two groups of 20 pupils each, from two different towns around Pirin Mts. were organized by the National Park service to visit us in Vlahi. We brought them to the enclosure, where first they heard lectures about wolves and about our work for their studies and conservation. Then they came out with us for a walk with Vucho.

In both cases it was obvious how amazed pupils were, how interesting it was for them and what an experience it was for them to touch a real wolf. I am pretty sure they are not going to forget this. All the pupils who met Vucho received at the end study books from those published for our education program with BTF's support. We still have some number of them and intend to use them in this way. We are also going to organize (probably in 2005) series of visits by pupils, who will pass a program with learning from the books combined with practical education (games in nature and visits to the wolf).

We got many international groups of young people, visiting the wolf and also listening lectures. This groups were organized by an organization called CVS – Bulgaria, which organizes ecological volunteer camps in Vlahi and the region.

We got many groups of young people from Bulgaria too. These visits were organized by an NGO called Adventure Net. They do nature education through excursions in nature and ecotourism (educational tourism). Vlahi is one of their main points for practicing this nature education through tourism, because many appropriate activities are concentrated there and on the top of all Vlahi is in the foots of the beautiful National Park Pirin.

### ***Organized visits of pupils***

This activity was supported by EURONATURE and was planned to be implemented at the end of 2004, but the weather became cold and inappropriate for visits in the mountain. We decided to wait until the spring.

At the beginning of the spring 2005 we contacted several schools from the region of South-west Bulgaria. It was arranged with them to bring groups of pupils to Kresna and Vlahi.

In April we started accepting the groups. Different number of pupils was brought from different schools, but they were always between 30 and 50 in a group. We organized these events for pupils between 8 and 10 years of age. For each group there was a projection about large carnivores and a visit to our ambassador wolf Vucho. With the purpose to make the projections a multimedia projector was purchased. The projections were prepared as a Power Point show. They were made in the town of Kresna where we rented a room for that. The multimedia projector is the first part of the needed equipment we purchased for the future LC center.

The pupils were also transported to the village of Vlahi where the enclosure of Vucho is. Each group met Vucho. Here pupils heard more about large carnivores, about our work for their studies and conservation. We showed them the methods we have to use to study wolves, because of the stealthy way of life these animals have. We explained them how Vucho became calm with people, without being afraid of them. Almost each pupil could come close to Vucho and touch him. Some of them had brought photo cameras and took photos of them with the wolf. Pupils were very much impressed after their visit to Vucho. Some of them said they have to bring here their parents to see him and to convince them that the wolf is not a bad harmful beast as they say. This was another proof that in most of the families, particularly in countryside, the wolf is presented to children as a harmful creature.

Additionally, pupils received calendars for all the classrooms in their schools. Everyone received personally a study booklet about the three large carnivore species, to work in it during the rest of the school year. We accepted altogether 8 groups of pupils from 7 schools. 290 pupils were included in these education activities. We consider this effort gave very good, positive results, but it will be much more useful to organize such activities when we already have the LC Education Center.

The information about these events reached medias and during one of the education days we had journalists taking interviews for two of our national TV channels. The interviews and reportages were emitted during the evening "News".

### **The Large Carnivore Education Center**

We have some progress with the LC center too. We received from the local municipality all the needed documents. A complete architecture project for the future LC center was made. Actually, the refurbished building will host different things. As it is very big, 2/3 of the present building will be used for a LC center. 1/3 of it will be a horse – stable for SEMPERVIVA's horses, 1/3 of a second level will be a hey- store. We made this symbiosis, because this building is too big for our LC center and on the other hand with the additional function it will be more attractive for visitors.

The first part of the equipment was already purchased. It is a multimedia projector got with the support of EURONATURE. Until the center is ready we are going to use it for all the education work we make regularly.

A project proposal for equipment and functioning of the LC center has been prepared in partnership with Education4Conservation from UK and was submitted to Darwin Initiative. The result is being expected.

### **Media work**

2004 was better “media” year than the previous ones. This year we were not so much focused on searching contact with the TV and the press, but they were searching for us.

At the end of February a journalist from a regional daily newspaper, a very popular one for the whole South – west Bulgaria, came to me for an interview. He took a long interview about our work, details of our studies and conservation activities. We gave him good pictures of the work and some with the wolf. In a few days in the beginning of March, the interview was put on the cover page of the newspaper called “Struma”.

Information about the article was spread the same morning by the Bulgarian Telegraph Agency. Other medias could hear about it and the immediate result was that the article was shortly read in an emission of one of the national radio channels and a TV team came to Vlahi the next day together with a representative of the Bulgarian Telegraph Agency and a journalist.

The TV team was from the satellite channel of our 1<sup>st</sup> National TV. IT is called TV Bulgaria. They took interview with me and filmed Vucho. The interview with the reportage was broadcasted in the evening news of TV Bulgaria.

After that several times photos of Vucho and me appeared in different national daily newspapers with short explanations what we are doing about wolves. This was result from the visit of the Bulgarian Telegraph Agency representative.

Long articles appeared the next two weeks in different “Yellow” newspapers. These articles were copied from the first one in “Struma”. There were some additional stories, with the purpose to make the sensation bigger, but generally the effect that many people could see, hear and read that someone is doing wolf conservation, not only persecution, was positive.

In April, a journalist from another national daily newspaper called “Sega”, came to Vlahi, took a long interview from us and a lot of photos. In about a week there was a whole page about the two projects in Vlahi, our Wolf project and the Karakachan breeds conservation project of SEMEPRVIVA.

On 22<sup>nd</sup> of April during the pupils visit, there were journalists from a regional TV channel, who were asked by BTV (a National channel) to film a reportage also for them. On the next morning the reportage was shown on BTV, the pupils meeting with the wolf, interview with Elena Tsingarska and shots of the wolf. There was a reportage also on the regional TV channel called “Oko”.

In was expected that all this media coverage will bring a reaction from hunters. And it happened! We came out on the cover page of their newspaper spread in the whole country. Probably the article was prepared by a local correspondent of this newspaper, because after the detailed information about our work there were some interviews with local people from some villages saying that wolf number became too high and their livestock is permanently attacked by wolves. The purpose of that article was to create negative disposition towards our work and wolves in general again and again. This reaction proves one more time that hunters are very difficult in accepting any positive changes in their attitude to wolves.

Our hope is that through the education of young people we can decrease the hunters’ number in future and the “hunters” kind of thinking. That’s why we are convinced that we need very much the Large Carnivore Education Center.