

Development of a Wolf Management Plan for Bulgaria **and** **Relevant Wolf Studies** **annual report, 2015**

Wolf Management Plan

Finalizing and submitting the Plan

The year of 2015 passed under the sign of finalizing the Wolf Management Plan. For our small team it's hard to believe that the process was brought to a stage of submitting the document to the Ministry of Environment for approval. During the last two years, everything around this Plan was connected with so many complications and delays, mainly because of the sudden position hunters took to oppose the process. After all the workshops of the group were held, suddenly the National Hunting Association took a different position towards the development of the Plan and this made its finalization impossible for some period. Hunters changed their statement to not accepting the short protection period for the wolf in Bulgaria (see Part 3 of the WMPlan, enclosed to this report), although they had agreed with it before that, during the document development. Another obstacle to acceptance of the plan was their opinion that the obligations for livestock breeders to hang sticks on their livestock guarding dogs (LGDs) should not be changed. Hunters did not want to hear and accept that there are other interested groups, which have different positions, opinions and needs and were insisting to repeal these two sections of the document: 1. the adoption of the protection season for the species and 2. The removal of the obligation for livestock breeders to put sticks on their LGDs chests. Different representatives of the working group put many efforts to explain hunters that as a priority species according to the Habitat Directive the wolf must have some legal status in Bulgaria and a protection period (even short) during its breeding season is a good way to show that our country cares for the long-term conservation of this species. However, they remain biased on this topic.

The main reason for hunters' fear of adopting the Management Plan derives from the fact that at the end of 2013 their representative attended a meeting organized by EC in Brussels, where a Large Carnivore Platform was discussed and adopted. Not understanding well enough that the Platform is not a document, which is literally applied in each country of EU, hunters misdoubt that this document is working for the complete protection of wolves in Bulgaria, as well as in each EU member state. They started doubt that the Wolf Management Plan for Bulgaria is the first of several steps to provide full protection of wolves in Bulgaria in agreement with the EU Platform.

In November 2014, public hearings of the Plan were held in 13 places throughout the country, as we combined some of the regions. There was interest towards the hearings, but generally from the side

of foresters and hunters, as well as the employees at the Regional inspectorates of the Ministry of Env. Other groups of the society like farmers, whose interests are directly affected by this Plan were presented only on some of the meetings. They couldn't defend their interests, which are not accepted by hunters and foresters in many cases.

Some photos of the public hearings ...



South-west region



Mid-west region



North-west region



Rhodope Mts. region

After organizing and conducting public hearings, the working group had to meet for final clarifications on the document. In the mean time a letter was received from the Ministry of Environment with recommendations for improvements and additions to the Plan. Those additions needed to be completed and we started working on it, together with particular members of the working group. When the improved draft of the Plan was ready, the working group met for final clarifications on the texts. On this meeting hunters maintained their opposing position towards a protection season and the LGDs issue. The two representatives of the responsible institutions (Ministry of Environment and Executive Forest Agency) clearly stated that the plan will be accepted in the form, in which it is already prepared. The focus of the discussion was moved to the common methodology for monitoring of the wolf. The working group had agreed on including this methodology in the plan and accepting it as official for the country, but on the meeting hunters made some comments of disagreement on this too. Each member of the group was asked to give

comments on the plan in the mean time, however they never did it. Coming to the meeting they tried again to spoil the process. As the time of that meeting was not sufficient to clarify all the questions raised about the methodology, the group agreed to meet again for half a day.



Meeting of the wolf working group, that was planned to be the last meeting of Wolf Plan development.



Our facilitator

As the summer came in the meantime, since June some key persons of the working group started taking leaves and were not available for a meeting. We decided to wait end of summer for that meeting. Finally in early September we managed to hold the meeting and to agree on the methodology. As this methodology was already accepted before that as part of the National System for Monitoring of Biodiversity in Bulgaria, now we needed to submit the corrections made by the group to the Executive Agency for the Environment for approval.



The very last half day meeting, for clarifying the monitoring methodology and other last details

In November, the Wolf Management Plan was submitted to the Ministry of Environment and at the moment we are waiting again to pass its way through and to be signed by the Minister.

As soon as we have an approved management plan we are going to inform all our partners, who were so kind and supportive all the way through this LONG process.

Translation of the Plan in English

Because of the situation explained above we decided to translate only the main part of the plan, which contains all the decisions of the working group about the future management of wolf population in Bulgaria. It is enclosed to this report as Appendix 1. All the rest is going to be translated, as soon as we get final approval of the document. The whole document is enclosed in Appendix 2 in the shape it is submitted to the Ministry of Environment (without Appendices). Shortly, the rest of the plan contains:

1. Introductions, people and institutions which participated in the process
2. Methodology of developing the plan
3. Legal base for its elaboration
4. Data about the species itself: Biology, ecology and status of the wolf population
5. Limiting factors and threats for the species
6. Wolves and humans (conflicts and solutions connected with wolves-livestock breeders, social aspects, information and education about wolves, economic advantages of wolf conservation, etc.)
7. National and European regulations concerning the species
8. International cooperation

Appendices of the Wolf Management Plan

1. Methodology of wolf monitoring (map of final areas for wolf monitoring enclosed as Appendix 3).
2. Protocol for correct collection and storage of DNA material from wolves
3. Method of estimation of wolf population (It is proposed by an expert in hunting. The working group decided the methodology is interesting and agreed to enclose the method in the appendices.)
4. Form of measuring and sampling dead wolves

Developing a website

The initial idea was to set a website of the Wolf Management Plan in Bulgaria. In the process of thinking how to shape such a site we came to the conclusion that it would be good to have a common website of Wolves-in-Bulgaria. In such a site it would be possible to include more diverse and complete information on wolves in this and other countries. The accent of the site would be the Plan and the different aspects of its implementation. So, we started developing the site. It is online now and it is being worked to fill it with updated, robust, useful and interesting information on the species in general and the particular situation in our country. The web address is: www.wolfbg.org

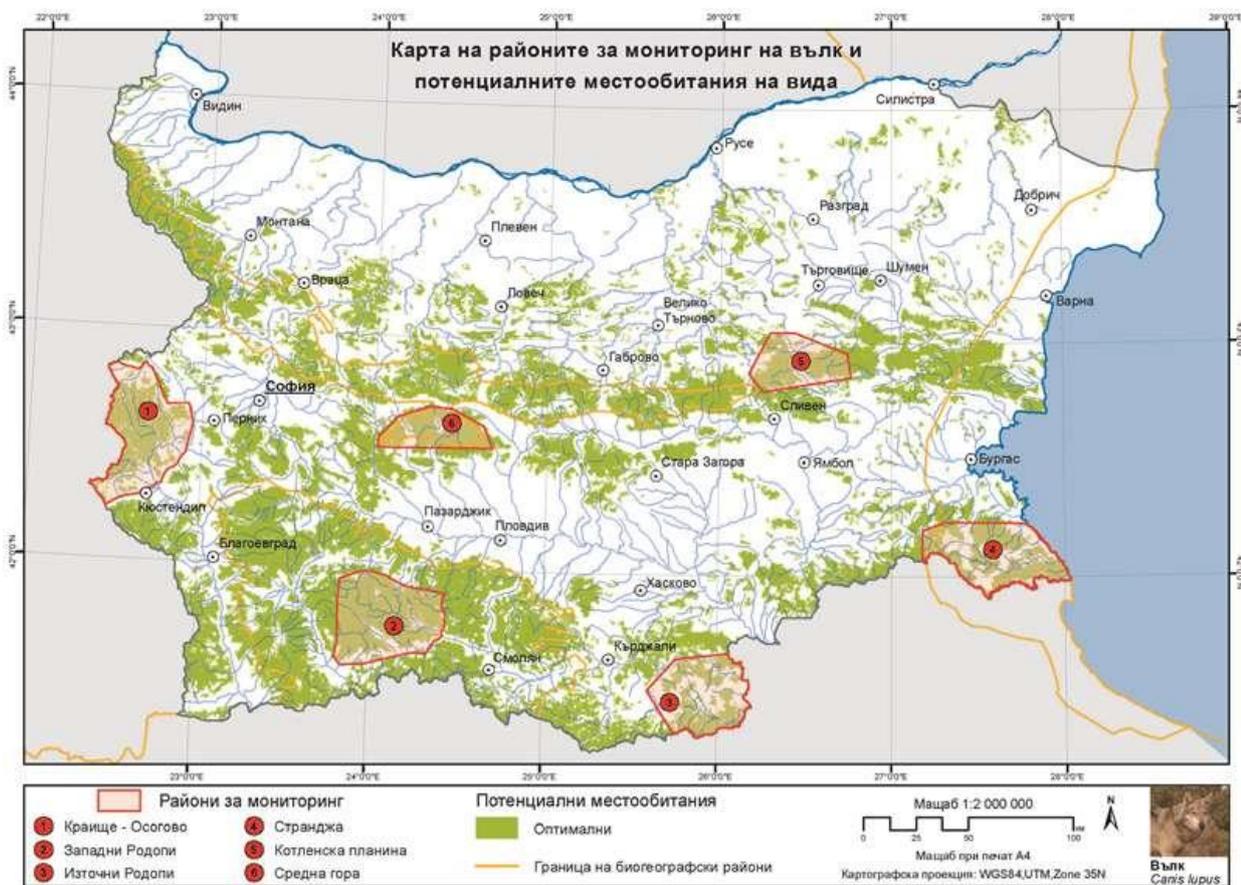
Wolf studies

Development of a common method for wolf monitoring

One of the most important steps, regarding wolf studies in this country was development of a common methodology for regular monitoring of species population. The methodology was elaborated by our team in the frames of a project commissioned by the Executive Agency of Environment. BALKANI Wildlife Society was contracted to elaborate such methodologies for 13 mammal species, including the wolf, the golden jackal, the wild cat, the pine marten and others. During 2013 – 2014, our team worked to develop the methods and tested them. This was very important, as the monitoring system was one of the main issues to be included and accepted as part of the Wolf Management Plan. Finally, in 2015 this methodology was accepted by the group of experts working on the Plan.

Generally, the accepted methodology of data collection is transecting method on snow. Six monitoring areas were defined and each one has certain number of trial plots (map 1). Common field forms are available for the registration of all relevant data in a uniform manner, which in turn allows for adequate processing of collected data. Methodology of processing the field data has also been developed. In this way statistically reliable results can be obtained.

Map 1. Monitoring areas for wolf *Canis lupus* in Bulgaria. Potential habitats for the species (in green).



Efforts of trapping and collaring wolves

As in 2015 our team was busy with many different tasks, we started the trapping efforts in October. We decided to work in Vitosha Mts., which is connected to Rila and Pirin Mts. by green corridors for large mammals. We already had information from the genetic analysis that closely related wolves

are found in Pirin, Rila and Vitosha Mts. So, after having three radio-collared wolves in Pirin Mts. we decided to try in Vitosha Mts. and see if we would register some migrations between the above mentioned mountains. Big part of Vitosha Mts. is a Nature park and in some parts of it no hunting is allowed. This helped us to set the traps despite of the hunting season, which starts on 1st October. Otherwise, during hunting season it is impossible to set wolf traps in grounds where hunting is practiced, because hunting dogs would be the first to go in the traps.



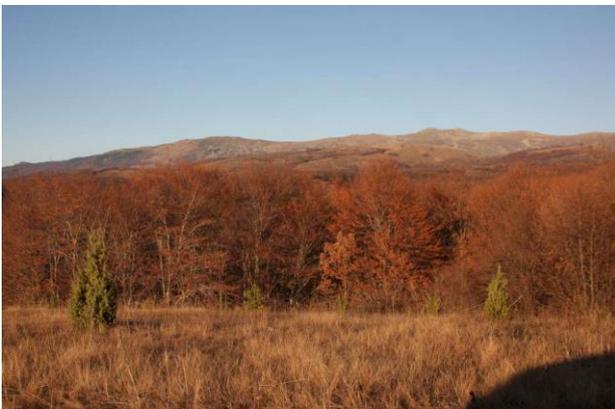
Vitosha NP, in the area of the first trap line



Setting the first trap line

The first trap line in Vitosha was set in October. Usually, after setting of traps, they are covered by branches and left inactive for at least two days, so that any human smell is gone. A few days after we set the traps we activated them. On the next morning, during the first check of the traps we found a bizarre picture. All the traps were visible, taken out of their wholes. Some of them were closed without an animal in, some others were just taken away from the whole they were set, but were still open. We assumed this must be done by wild boars, which are in good density in this area. We decided to pull out the traps, because the same could be expected to happen next days, if traps stay active and also we were risking to trap a wild boar or other unwanted species.

After some preparations of the traps and all the needed tools, in mid November we set another trap line, again in Vitosha Nature Park, but in another area. Again, few days later we activated them, adding the bait and started checking every morning.

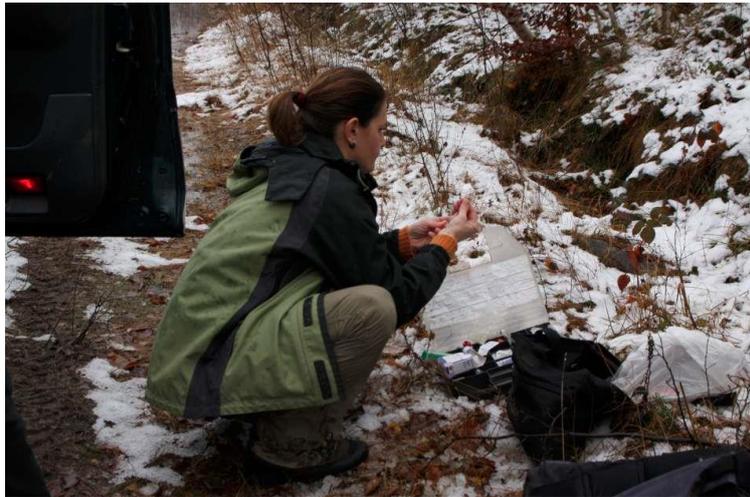


Vitosha NP at the area of second trap line



Setting the second trap line

Although, right after we activated the traps the weather became nasty, raining every day, this time we had a good chance. On the seventh day after activation, on 28 November, there was a wolf trapped. After the procedure of tranquilizing and taking measurements and samples we equipped the wolf with a GPS-GSM collar. It's a young male, born last spring. He is very well developed individual, weighting 29 kg. In spite of the continuous rain, everything passed well and after about two hours he started moving slowly. We left him alone, to minimize the stress for him.

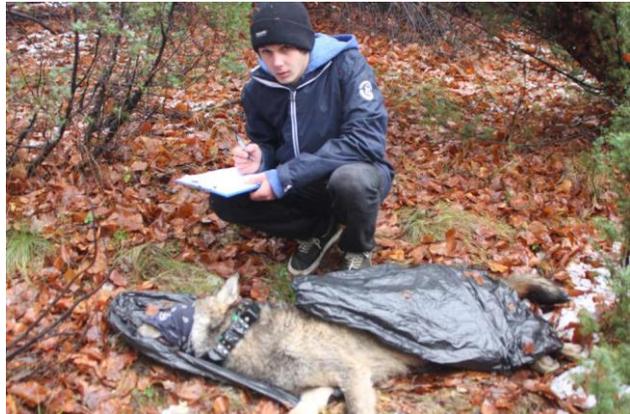


Traps are well camouflaged (the red arrow is the location of one trap). The wolf was trapped on this trap.

Preparing tranquilizer and darts.



Equipping the wolf with GPS GSM collar



Filling in the wolf-trapping form



Everything is done. Awaking up.



We were eagerly waiting to receive the first data from the collar. When this did not happen the first few days, we started to worry. After several searches in the field, in which we received no signal from the VHF transmitter either, we realized that we have a serious problem. We are currently trying to determine what it is together with Vecronics that are the collar manufacturer.

This winter we are planning to snow track this pack in order to collect at least some initial data about its territory, pack members, etc.

Collecting wolf samples for DNA. Wolf genetic analysis

Until the end of 2013 our colleagues from the Polish academy of sciences received from us 54 tissue and 17 scat samples, which were not included in the previous study of the first 113 samples. The additional samples were analyzed and some results were obtained. The recent samples were also

analyzed together with the first 113, in order to discover different kin-groups (relation among individuals).

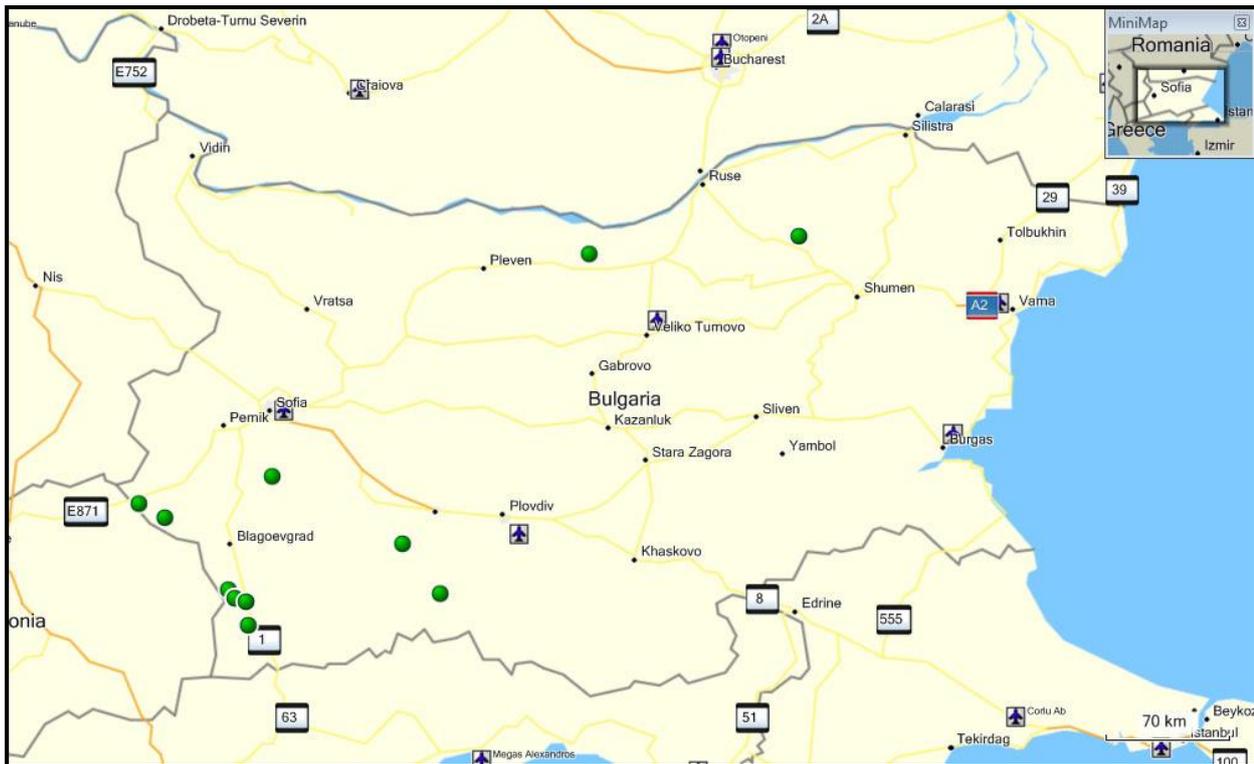
For the last two hunting seasons, we collected another 50 wolf DNA samples. Those samples are going to be sent to our Polish colleagues for analysis very soon. In the meantime, we received from them the results of the hybridization analysis of the last 47 samples, which they did not manage to do last year. Among those samples hybrids with dogs occur too. One of the analyzed individuals appeared to be direct wolf-dog hybrid. That is an adult female from North Bulgaria. It was killed by a hunter there and only a tissue sample was sent to us. We do not have photos, so we don't know anything about the exterior of the animal. Although, we ask hunters to take photos from wolves, which we can't go and see, usually they don't do it. Based on our field work in 2011 – 2013 and other data, we know that the wolf population in North Bulgaria is very weak. We still have very few samples from the north part of the country, but already a second hybrid from there (see map 2).

The other two individuals with dog admixture from the latest analysis are males from North Rila and respectively from Mid West Bulgaria. From the first animal we don't have a photo, but only got the sample from hunters. The case of the second animal is very interesting. A young hunter, who shot it, found information about us in internet and wrote us an email, explaining that he shot a "marked" wolf. He was asking in which areas of the country we "mark" wolves, and was wondering if the "wolf" he shot was marked by us. Our colleague went to the town of the hunter to get more information. She took a tissue sample for DNA analysis. The animal was already skinned and the skin was sent for processing so she could not see it. The hunter explained that the "wolf" had tattoo on the belly (some unclear letters or numbers). It was very unfortunate, that we couldn't see the tattoo. At least he had photos of the animal, which he kindly provided to us. When we saw the photos, we thought this animal is a pure dog, but we sent its sample to Poland. The results showed that it is 80% wolf and 20% dog. It is clear that this male has been kept in captivity, at least part of his life. The tattoo proves that. This fact also gives indications that artificial hybridization is going on somewhere. However, we still can't be sure if this is happening in Bulgaria or in some of our neighboring countries Macedonia or Serbia. The area, this hybrid was shot is not far away for our west border with those two countries. We intend to continue the investigation on this case.



The wolf back-cross from Mid-West Bulgaria

Map 2. Locations where wolves with dog admixture (wolf-dog direct hybrids and wolf-dog backcrosses) have been killed



Another interesting thing from this analysis is that our Polish colleagues discovered another individual with golden jackal admixture. From the first 113 samples three such individuals were identified. The new one is a male wolf also from Mid-west Bulgaria, which was skinned when our colleague visited the hunter to take a sample. She measured and took samples from the skinned body, so we don't have photo of that animal too. The percent of jackal genes are determined on 14%. So, this is the fourth case of a wolf-jackal back-cross form the samples we have been collecting. Four cases out of around 150 samples/individuals analyzed. This issue also needs to be investigated further.

Additional information that deserves attention is that three of the new samples turned to be from dogs. We know one of the three individuals. It was a female shot in the forest by hunters. The look of that animal was wolf-dog. However it appeared to be a pure dog, which is still not a surprise for us. The other two individuals determined as pure dogs are from an area not far away from the first female, but we received only samples from them. The comment of the hunters was that "those wolves were very black". This information of wolf-looking dogs running free in the mountain also raises questions about the hybridization, which we need to try searching answers.

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December, 2015