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The *Karakachan Dog* - Continuation of an old Bulgarian Tradition

by
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Introduction

The *Karakachan Dog* (Figure 1) is the breed which has been traditionally used in Bulgaria for centuries for both the protection of livestock and property. *Karakachan Dogs* work well with sheep, goats and cattle against wolves *Canis lupus*, bears *Ursus arctos* and golden jackals *Canis aureus*. The 50 years of socialist regime in Bulgaria almost exterminated this breed, which happened with many other native breeds.

I can not explain the exact reason, but these dogs impressed me a lot during my childhood. Working beside my grandfathers who had sheep I had the possibility to have direct contact with these dogs in their natural environment. 13 years ago my brother and I started to seriously work on this breed and started breeding such dogs. Searching for the last dogs left with the flocks and finding all the information that existed about the breed turned into a kind of mania for us. The hundreds of expeditions and meetings with shepherds and their dogs are the base on which we build up our knowledge of the working *Karakachan Dog*. A lot of dogs passed through our hands. We purchased them from shepherds. They are the base of the breeding work in our breeding station. Not all these original dogs are live anymore, but they



Fig. 1: *Karakachan Dog*. (Photo: Atila Sedefchev)



Fig. 2 & 3: Flocks guarded with *Karakachan Dogs* on typical grazing areas. (Photo: Sider Sedefchev)

gave us the possibility to breed many of their descendants. In 1997, with other colleagues, we registered the Bulgarian Biodiversity Preservation Society - SEMPERVIVA, which main part of work is dedicated to saving rare native breeds of domestic animals. Within the framework of this activity, society established and own flocks of rare sheep and goat breeds guarded by *Karakachan Dog*. In 1997, together with the BALKANI Wildlife Society and particularly with their Wolf Conservation team, we started a project to support herdsmen with *Karakachan Dog* to help protect their flocks. The main goal of this activity is to reduce the conflict between local people and large carnivores. Another important aim for us was to return and maintain working *Karakachan Dog* populations. During the first project phases, we worked in areas where livestock losses are mainly caused by wolves. In that period the work was financially supported mainly by EURONATUR, but also by the Wolf Protection Society (GzSW) and the Wolf Conservation Trust (UK). Since 2002 the same activity is being continued with the financial support of the ALERTIS Foundation, formerly the International Bear Foundation, and the work is done in regions, where bear attacks on livestock occur. This is done in order to decrease the human – bear conflict and as a consequence improve the conservation of the wild bear populations.

Study area

In Bulgaria livestock grazing is traditionally extensive and such dogs have been used for millennia. Large carnivores such as wolf, brown bear and lynx *Lynx lynx* have always been present in Bulgaria. The numbers and the densities of the wolf and the brown bear are among the highest in Europe. On a territory of about 20,000-25,000 km², which is suitable for

large carnivores, there are about 1,200 wolves and 600 bears (Tsingarska 2005). The golden jackal has become a very numerous predator too, particularly during the last 20 years, when it spread across the country. The type of terrain in this country is mountainous and forested. Usually flocks are grazed in such rough areas which makes the dog's work complicated (Figure 2 & 3). In summer some of the flocks are moved up to the alpine pastures for 3-4 months (Figure 4).

Project

There are several main principles in the work on this project. We very carefully choose the herdsmen, who will be provided with dogs. We never had the idea to give dogs in large numbers. According to our opinion it is better to select livestock owners, who will not only use the dogs but who will also continue this process by producing puppies and giving them to other owners. In this way, the effect of the natural dispersion of these dogs is achieved. That is the reason we always give a male and a female puppy at 2-3 month's age which are not related to each other and which can potentially breed together. Thus, the owners make minimum efforts for breeding the dogs and in the same time the selection of the breeding pair is made by us. In some cases we give more than two dogs to an owner. This happens when we consider it is necessary, because of large number of livestock, difficult terrain for the dogs and suitable for predator attacks, or high carnivore density. Another important factor when selecting a dog owner is the effect which will be achieved by the work of the dogs guarding the flock. For instance, if the animals in the flock are gathered together from several owners, the effect of this activity will be bigger. We hope that if people have less problems with predators, that there will be



Fig. 4: On the summer alpine pastures (up to 2500m.) in the *Pirin* mountain. (Photo: Sider Sedefchev)

less reason to poach bears or wolves. Often we choose common flocks, in which the livestock is gathered together from all the people in the village. In one flock, numbering 1,200 animals, where sheep were gathered from 114 different owners, we gave four dogs. Later the shepherd of this flock produced many puppies and kept 4 of them for himself.

We have a contract with every livestock owner who takes a LGD. The contract also contains passages concerning future puppies. Particularly, there is text which says that he has to give them to other herdsmen after consulting us. Up to date 76 *Karakachan Dog* have been given to livestock owners. Most of the puppies socialized easily with livestock. Many experienced shepherds were pleased to see how the puppies started going with the flock of their own will on the second or third day. We choose puppies, which clearly show suitable LGD behavior from an early age, i.e. vigilant, tough, courageous and with good physique.

Effectiveness of the *Karakachan Dog*

The effectiveness of the dog's work is very high. Since 1998 there have been altogether three cases of successful predator attacks in the flocks provided with dogs in the frames of this project. In one big flock of 650 sheep, four had been killed. Actually, the mistake in that case has been done by the shepherds who had divided the flock in two parts during grazing and one of the two parts had been left without dogs.

The *Karakachan Dog* is strictly territorial. It accepts the flock as its territory, whenever it is. Being close to the flock, they become visible aggressive. If stranger tries to catch an animal from the herd this person can be exposed to serious aggression. However, when a flock is passing through a village the dogs walk calmly without paying attention to people. But I do not remember a case of a person been bitten by project *Karakachan Dog* guarding livestock. There is another reason for the lack of accidents. Namely, the tradition of guarding livestock with big, aggressive dogs has always existed in Bulgaria. Everyone knows about them and people simply avoid the flocks so conflicts don't occur. Also there are dogs,

which do not express aggressiveness towards people, but in same time are excellent guards against predators. The trends are in breeding dogs that are less aggressive towards people.

Our own project flock is protected by five *Karakachan Dogs*. The two males MURCHO and PERUN, work very well together. It is typical for PERUN that he always moves behind the last sheep and if he does not come back with the flock it means that some sheep had dropped behind and he is there. In the evening when the flock is resting he takes the position from where most potential attacks occur. On the other hand MURCHO moves in front of the animals and when the flock turns in a different direction he literally searches the area. This behavior is innate and I have observed it with other dogs. The other three dogs in our flock make the team really effective. For four years there were many attacks on the flock, but none of them were successful. All these years we had the possibility to observe the dogs reaction against wolf and bear attacks. They register the presence of a predator in time and chase it sometimes up to two kilometers. We have seen that if a wolf stops for a moment to scare them, the dogs go in directly, fighting with a clear intention to kill the wolf. However, it is very unusual that dogs manage to catch or kill a wolf. Usually the wolves outrun them. In the cases when this happens most often these are young wolves around 1 year old. Some people may consider that this behavior is worse than the accepted opinion that the dogs should always keep close to the flock. However, when I saw a film



Fig. 5. *Karakachan Dog* wearing a stick which acts as a hindrance to prevent the dog from running. (Photo: Sider Sedefchev)

made with thermo-sensitive camera in the French Alps I saw how the Great Pyrenees chased the wolf only short distances before leaving it. Even if the predator stops, the dogs also stop, and start barking at it. It is visible that this doesn't scare the wolf. Just the opposite, the dogs show him with their behavior that they are not a real obstacle and the wolf's success is just a question of time. And this was exactly the result in the documentary. When the dogs chase the wolf with the intention to kill it, this means much more for the wolf. In Bulgaria the theory: "The dog barks – the wolf runs away" is not valid. If it was like this there wouldn't have been cases of dogs killed by wolves and more seldom the opposite. Probably the reason is that both the dogs and the predators are experienced with one another. The wolf can see if the dog is not determined enough and would make attempts to attack if it is not seriously disturbed. On the other hand dogs see that they should clearly show that intruders can get in troubles.

Problems

One of the most common problems we encountered was poor feeding of the dogs while growing up. This was against the contract clauses. But on the other hand shepherds are among the poorest people in Bulgaria. Eventually, the owners themselves loose from the result, because their dogs do not develop well. Certainly, sometimes other contract clauses are not

respected, but this did not disturb the main process. Until now, there has been only one case where we had to take back two dogs.

The most serious problem is killing of the dogs by hunters. Actually, this problem exists in the whole country and is getting worse recently. In practice, a lot of livestock guarding dogs die after they have eaten poisonous baits distributed illegally by hunters for predators. Others are directly shot by hunters. Shooting of these dogs is done on purpose. Unfortunately, in certain conditions it is

even legal. There is an absurd law, according to which shepherds are obliged to put a 30 cm long stick on the collar of their dogs (Figure 5), which hangs to the elbow joint. This stick is supposed to act as a hindrance to prevent the dog from running, and dog without one can legally be shot by any hunter. In Bulgaria the hunters are a powerful lobby, which is the main reason for this law. Shepherds do not agree with the use of these sticks because they are an obstacle to the dog's work and view it as being too humiliating for the dog.

The real reason for the hunter's hatred of livestock guarding dogs is the fact that they sometimes kill hunting dogs, which try to penetrate into a flock. Hunting dogs are often left outside alone after the hunting day ends and they chase wildlife. Unfortunately there is no regulation which controls this free hunting dog movement in the forest. Another problem we met is that two of the given dogs were stolen. Unfortunately, we can't control and prevent such cases. Thus, until now there haven't been problems with the given dogs. The main problem is the human factor.

Genetics are important

A main topic in our work is the selection of dogs from which we would get offspring to be distributed later. The criteria of a good working LGD in Bulgaria – and my personal criteria – differs from the criteria of some colleagues from western countries.

The socialization process is accepted as a key factor for the future dog's development and work. In many publications concerning LGD behavior, the same methods are described for proper socialization of a puppy (Mazover 1956, Coppinger et al. 1988, Green & Woodruff 1990, Landry 1999, Coppinger & Coppinger 2001; Dawydiak & Sims 2004). As a very important factor, the right age to introduce the dog in the flock is pointed out and a feature of successful socialization is a submissive position towards livestock. Certainly, I would not like to underestimate the role of the socialization, however there are other crucial and important factors for the dog's protective effectiveness.

Quite often there is the statement that the dog should create a feeling of being one of the sheep. I think this is not possible and I can't understand why so much attention is paid on this as a factor of good guarding behavior. According to my opinion based on my practice the dog realizes very well that it is required to protect livestock. At the same time the dog keeps its bright individuality, which is leading to this type of protective behavior. Why should the last one in the hierarchy protect its "bosses"?!

The good behavior is expressed mainly by the effectiveness of the dog as a flock guardian (Labunskij 1994). According to my practice I am convinced that it is possible to socialize an already adult dog with livestock. One of the many examples is the bitch BELKA, which we gave to an experienced shepherd five years ago. She is living in a remote area in the Rila Mountains. When we brought her to the shepherd's sheep, she was four years old. She was born in our breeding station and had lived there until then. The first thing she did was to attack the shepherd's female dog, which was twice as big and a mixture of *Karakachan Dog* and *St Bernard Dog*. BELKA has always had the wish for fighting. She bit the other female in such a way that we hardly managed to separate them. The other bitch was psychologically broken from Belka's self-confidence and ran away leaving the flock. Exactly this moment is the important one in this story, because BELKA could potentially have been a wolf, and if she had, the mixed breed dog would have proven to be ineffective. On the same day BELKA made efforts to get to know all the sheep, licking them under their tails showing that she is open for contact. On the next day the shepherd led her on leash with the sheep. In a week BELKA was already staying with the flock without the shepherd. Her innate hatred to predators and her energetic nature helped her to become a livestock guarding dog in the real sense. I think the main factor for her

success was her origin, but also the good approach of the shepherd. The competition between the livestock guarding dog and the wolf is leading to a high degree on psychological level. Many times I have observed how a physically strong dog with a confident character enters undisturbed the territory of a group of other LGDs. Those dogs keep on barking on him but they did not touch him, and even allowed him to walk into the sheep pen among the animals. Hence, what is the result of the good socialization and lots of barking by these labile dogs? Since we have had a guarded sheep flock, two dogs have been killed by wolves. They were very young and too brave, but not experienced enough. Such cases happen sometimes. The point is that the good *Karakachan Dog* should die rather than leave the flock without protection during an attack. It is not important if it will be a *Karakachan Dog* or another LGD breed. Each LGD must act like this, with the purpose to give a real opposition to predators. Certainly, my criteria for dog's characters and psyche are different from the criteria of other authors. This is because LGD breeds are different from one another. The conditions these qualities can be expressed under are also very variable.

Another example is our dog MURCHO, who lived in the station till 10 month's age, after which we introduced him into our sheep flock. The process was quite simple and quick. The first night MURCHO stayed chained in the sheep pen. On the next day I took him with the sheep and the next night he was with the sheep again. On the second day the shepherd led him for a while on leash and then he let him free. Since that day MURCHO has never left the flock. It is difficult to explain in two sentences the mentality of the real, experienced LGD dog, but for me MURCHO is exactly such a dog. These are the dogs which live and die as soldiers.

Conclusion

I think that certain theories about LGD behavior should be searched in places, where real conditions exists. Such conditions still exists in some countries in Europe and Asia, where the tradition of using LGDs are oldest and are still alive. In these countries large carnivores have always occurred in significant numbers, the extensive livestock breeding has long traditions, and flocks are guarded by dogs selected only for work, not for the show ring.

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Providing Livestock Guarding Dogs and Compensation of Livestock Losses Caused by Large Carnivores in Bulgaria

by
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Introduction

Predation on livestock in Bulgaria is a serious problem. Not just because of the number of animals killed but rather because livestock losses motivate the livestock breeders to kill large carnivores in revenge, even using poison baits which are illegal in Bulgaria. Carnivores that kill livestock in Bulgaria include the brown bear *Ursus arctos*, wolf *Canis lupus*, jackal *Canis aureus* and exceptionally, the red fox *Vulpes vulpes*. The deployment of poison baits has unfavourable impact on the populations of carrion eating species as vultures, namely: black vulture *Aegypius monachus*, bearded vulture *Gypaetus barbatus*, griffon vulture *Gyps fulvus*, egyptian vulture *Neophron percnopterus* and several eagles: imperial eagle *Aquila heliaca* and golden eagle *Aquila chrysaetos*. Most of these species are threatened and some of them have even been exterminated from Bulgaria due to the use of poison baits in the past.

Livestock depredation

Wolves are present in the southwestern part of Bulgaria in altitudes of 350-1800 m.a.s.l. while brown bears occur in the mountains Rila and Pirin. In addition, there are many feral and free-ranging dogs which greatly outnumber wolves and bears, although few dogs are believed to attack livestock as local hunters or poachers quickly kill aggressive dogs when sheep owner ask them.

The Fund for the Wild Flora & Fauna's (FWFF) project area covers the municipalities of the SW edge of Bulgaria on territory of about 2000 km². There the wolf causes the most numerous livestock kills (Figure 1), while the bear is the one that causes the highest economical losses by killing larger livestock like cattle and horses. The jackal and the red fox are rarely responsible for livestock losses. The feral dogs are a very serious problem in the settlements and the areas where wolves and bears are absent. The livestock density in the study area is 38 animals per 1 km² in total. The density of the larger