

**Review article****The shepherd dog breeds in turkey: a survey****Orhan Yilmaz^{1*}, Halit Deniz Sireli² and Mehmet Ertugrul³**¹Ardahan University, Vocational High School of Technical Sciences, 75000, Ardahan, Turkey;²Dicle University, Faculty of Agriculture, Department of Animal Science, 21280, Diyarbakir, Turkey³Ankara University, Faculty of Agriculture, Department of Animal Science, 06106, Ankara, Turkey**Article history**

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Abstract

Shepherd dogs are bred to protect the intruders and predators away from livestock. Traditional breeding of these breeds have been shaped in the historical process in Europe with Asian countries and Turkey. In Turkey, there are five shepherd dog breeds including Kangal (Karabash), Akbash, Kars (Caucasian), Sheep and Karaman shepherd Dogs. Although the first three breeds have been registered, Sheep and Karaman shepherd dog have not been registered yet. This review provides the fundamental features of these important dog breeds.

Keywords: *Canis familiaris*; protection dog; farm animal; genetic resource

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Introduction

Turkey lies between Asia and Europe like a bridge that has been traversed by traders, travellers, treasure seekers and trespassers for thousands of years. Hence it is also a cultural bridge among many civilizations. In part because of this history, Turkey is a repository of a rich array of domestic livestock resources that includes animals for food, work and companionship (Yilmaz and Wilson, 2012).

The present day inhabitants of modern Turkey arrived in the country with the expansion of the Turkish Empire out from Central Asia in the middle of the eleventh century. Turks migrated with their herds and flocks and were accompanied by the guard dogs that protected their animals. In the one thousand years since the Turkish arrival in Anatolia (Asian part of Turkey) and Thrace (European part of Turkey), several dog breeds have been developed. Whilst Turkish hunting dogs are analogous with those of Europe, the shepherd dogs of Turkey are guard dogs and are trained to protect the flocks (Yilmaz et al., 2012).

The purpose of this review is to provide basic information on five breeds of dogs safeguarding livestock among which three are registered breeds and two unregistered breeds.

Native breeds of Turkey

The three registered dog breeds are Turkish Kangal (Karabash) shepherd, Turkish Akbash Shepherd, and Turkish Kars shepherd, and two are not registered including Koyun and Karaman shepherd dogs (Yilmaz and Ertugrul, 2012a). Apart from these, there are also dog breeds of Turkish Tazi (Sighthound), Zagar (Erect-Ear), Fino of Tonya (Kobi), Zerdava (Kapi), Tarsus Fork-Nose, and Izci Kopegi Zagar in Turkey (Yilmaz and Ertugrul 2011a,b,c; Yilmaz, 2012a,b; Yilmaz and Ertugrul 2012a).

Kangal (Karabash) shepherd dog

This breed is commonly known as Kangal Dog in Turkey and as Anatolian Shepherd Dog in abroad (Yilmaz, 2011). It is believed that the Kangal is originated in Central Asia (Kirmizi, 1994; Yilmaz,

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2007a,b; Derbent and Yilmaz, 2008; Yilmaz, 2008) and is genetically distinct from other Turkish dog breeds (Togan, 2003). The Kangal Dog is still raised in Central Asian Turkic Republics including Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan (Fig. 1). This breed can even be seen in Northern Iran (South Azerbaijan) (Fig. 2), Northern Afghanistan (Fig. 3), Western Mongolia (Bayan Olgii Province), Western China (Uyghur Autonomous State), and Southern Russia (Altai Autonomous Republic).

The Kangal dog has historically been associated with the town of Kangal, a district town in Sivas Province in eastern Anatolia where Kangal Akkaraman sheep type production is an important activity. Kangal is not the original name of this breed but came into use in Turkey via discussions at the United Kingdom's Kennel Club in the 1970s (Broadhead, 2003; Reed, 2003). The original name of Karabash (Dikmen, 1936; Tellioglu, 1973; Oncul, 1983) means "blackhead" in Turkish and derives from the black muzzle (Fig. 4).

It is commonly known wrong that neither the district town of Kangal nor the province of Sivas is origin of this dog. On the contrary, the province of Konya is the best example where Kangal dogs are raised and also the most crowded population of this breed is found. Moreover, this dog was first time exported to UK and USA from province of Konya (Yilmaz 2007b; Yilmaz, 2008; Yilmaz, 2011).

The Kangal can withstand the extremes of the cold harsh climate of its homeland. Courage, faithfulness and sensitivity are the foremost characteristics of the breed. It is a fearless and capable protector of its own flock, herd and its human family with whom it forms bonds yet it is a formidable fighter against large dogs and other predators (Pugnetti 2001; Derbent and Yilmaz 2008; Yilmaz, 2008).

The Kangal dog has a strong, sturdy body with a black mask and muzzle and black around the ears and eyes. The tail hangs low and has a slightly upward and forward curl (Gulec 1996; Yilmaz 2007a,b). The true Kangal dog colour is solid dun or slightly paler shades of fawn or cream but never snow white (Robinson 1989; Yilmaz 2007a,b). This dun or slightly paler shades of fawn or cream colour is called as "boz" in Turkish (Yilmaz, 2008). Colour is an important breed trait and in Turkey non-standard colours or patterns are indicators of outside blood (Yilmaz 2007a,b; Derbent and Yilmaz, 2008, Yilmaz, 2008). The dense double coat is moderately short. Average mature live weight is 47.6 kg for males and 43.5 kg for female with shoulder heights of 75.9 cm for males and 73.3 cm for females (Yilmaz, 2007a) or exaggerated size (Yilmaz, 2008).

The Kangal was registered with the Turkish Standards Institute (TSI) under notification number 11172 in 1997 (Anonymous, 1997a). It is supported by government and academic institutions where Kangal



Fig. 1: A Turkish Kangal (Karabash) shepherd bitch in a village near Ashkhabad, Turkmenistan



Fig. 2: Dog showing close resemblance to Turkish Kangal (Karabash) Shepherd Dog in city of Sarap, near Tebrizi, Northern Iran



Fig. 3: Dog showing close resemblance to Turkish Kangal (Karabash) shepherd dog in city of Aqhca, Northern Afghanistan

dogs are bred and their pedigrees are carefully maintained. Its iconic status is confirmed by its appearance on a Turkish postage stamp. Outside Turkey, The Kangal Dog Trust is operated in UK. Kangal dogs are recognized by the Kennel Club of the United Kingdom, the United Kennel Club of the USA and by the national kennel club of South Africa, New Zealand and Australia. The first Kangal litter was born in the United Kingdom in 1967 and purebred programmes were established in the USA in the 1980s. Kangals are bred in Germany mainly by immigrant Turkish workers and are registered as Anatolians but most are unregistered. There are Kangal clubs or breed societies in Belgium, Bulgaria, France, the Netherlands and Sweden (Yilmaz, 2007b). In Namibia, where Kangals are used to guard sheep flocks, almost 300 Kangals have been given to farmers by the Cheetah Conservation Fund since 1994 (Anonymous, 2010). The Turkish Kennel Club is petitioning the FCI for recognition of both the Kangal dog and the Akbash dog (Yilmaz et al., 2012).

Akbash shepherd dog

The Akbash is another molosser that is widely used as livestock guardian dog (Fig. 5). The origin of this ancient breed is unclear but it is believed that it originated in Central Asia. In Turkey, the breed is now mainly found in plains and mountains of Ankara, Afyon, Eskisehir and Konya Provinces which is known as the Salt Lake Plateau (Yilmaz, 2007b; Yilmaz, 2008). This breed is endangered and its population is less than population in USA. There are also members of Akbash dogs in Canada and the Netherlands (Yilmaz, 2011).

Akbash translates as “white head” and the main colour is a solid milk or porcelain white (Qadiri, 1998; Yilmaz, 2006, 2007a,b; Derbent and Yilmaz, 2008, Yilmaz, 2008). Purebred Akbash are free of pinto, skewbald and brindle markings or other indeterminate colours although a cream stripe from the ears to the rump is acceptable. Compared with the fawn coated Kangal, the Akbash has a more refined appearance with a pointed muzzle and a softer coat with medium to long. Weight and height at the shoulders are similar to or slightly less than the Kangal with a mean weight of 44.9 kg and shoulder height of 75.3 cm (Yilmaz and Ertugrul, 2012a). Although the Kangal and Akbash phenotypically resemble each other in some respects they are genotypically distinct breeds (Togan, 2003). The Akbash has a natural protective instinct and is equally as brave and faithful as the Kangal and possibly even more so in fighting with predators. Temperamentally it is calm, quiet, alert, courageous and independent. It is a very agile dog capable of jumping over obstacles as high as a man. Great stamina is coupled to a great speed (Anonymous, 1997a; Kartay,



Fig. 4: Two Turkish Kangal (Karabash) shepherd dogs guards the sheep flock, near city of Sarayonu, Konya Province, Turkey



Fig. 5: A Turkish Akbash shepherd dog, near city of Gurun, Sivas Province, Turkey



Fig. 6: Turkish Kars (Caucasian) Shepherd Dogs guards its flock, near city of Baskale, Van Province, Turkey



Fig. 7: A Koyun Dog tied up guards its home



Fig. 8: A Karaman Dog with his lady owner.

2008; Yilmaz, 2008). The Akbash was registered with the Turkish Standard Institute (TSI) under notification number 12891 in 2002 (Anonymous, 2002a).

Kars (Caucasian) shepherd dog

This regional breed, another molosser type, was first defined in 1996 (Nelson and Nelson, 1996). It has several alternative names including 'Killi' (Shaggy) in Erzurum and Kars Provinces, 'Sacakli' (fringed) in Ardahan Province and 'Tuylu' (hairy) in Artvin Province (Yilmaz, 2008) and these localities are its main areas of distribution but it also extends to Igdir, Agri and Van Provinces (Yilmaz, 2012b).

In appearance the Kars resembles the Caucasian Ovcharka (mountain dog). Its coat exhibits many colours and patterns. Colours include black, reddish brown, agouti, grey, mixtures of black and brown, white, piebald and white with grey patches. White markings are very common in otherwise solid colour dogs. Also common are white forequarters, chests and neck collars. The head is usually dark. The usually long

coat, there are also some short-coated dogs, is important under severe winter conditions but when it is shed it gives the dog a dishevelled motley appearance. The hairs on the neck and the back of the hindquarters are long and this mane makes it appear larger from the front (Fig. 6). The Kars is a somewhat smaller dog than either the Kangal or the Akbash with a mean weight of 44.6 kg and a mean height 72.4 cm (Yilmaz, 2012b). Local anecdotes relate that a small group of Kars dogs can cope with and even kill a smaller-size bear. In general, the Kars is a "one-man dog" but it an ideal courageous and faithful guard dog (Yilmaz 2006; 2007a, b; Yilmaz, 2008).

The Kars has a breed standard provided by the TSI as Notification Number 12892 in 2002 but this seems unreliable in some respects and especially for weight. According to the standard, height at shoulder is 65-90 cm and weight is 80-100 kg. This size makes the dog one of the largest and heaviest dog of the world; in fact Kars Dog is smaller than Kangal and Akbash dogs (Anonymous, 2002b).

Koyun dog

Newly described by Yilmaz and Ertugrul (2012b) from Rize Province on the eastern shore of the Black Sea in northeast of Turkey. The Rize Koyun is a flock and herd guarding dog of molosser type (Fig. 7). Koyun dogs are also present in small numbers in province of Giresun, Gumushane, Bayburt, Erzurum and Artvin. The dog is also known as "Bayburt Kelpi" in those areas (Yilmaz and Ertugrul, 2012b,d).

The dog is met in various colours but dark grey is the most common. Bi-coloured animals also occur. Koyun dogs have a solid body structure and strong legs which make for easy traverse of the hilly areas of the Canik mountain where they are found. The tail is normally pendent but is raised in an alert posture up. Shoulder height of dog is about 70 cm in male and 1-2 cm lower in female. The Koyun is not a pet and in addition to guardian duties it assists its human owners in giving vociferous or even physical warning of the presence of intruding people or animals (Yilmaz and Ertugrul 2012b,d).

Karaman dog

The Karaman dog (Fig. 8) is mainly raised in Karaman, Konya and Aksaray province in Central Anatolia where the herding of Akkaraman sheep is widespread. In some respects, the breed resembles the Kangal (Karabash) type but the Karaman occurs in many different coat colours. It has a sturdy body constitution and strong legs and is adapted to the hot and dry climate and geographic conditions of Central Anatolia (Yilmaz, 2007a; Yilmaz and Ertugrul, 2012d).

Conclusions

The Kangal and the Akbash are the two major dog breeds of Turkey. Not only are they widespread in the country but also elsewhere in the world where they continue to be used as guardian dogs in addition to their new role as “fashion accessories”. None of the other breeds is widespread within Turkey and they are generally little known outside the country. Turkish dog owners complain that local breeds are in constant decline and this anecdotal evidence is supported by the records of the Turkish Dog Federation in which only two of 21 member associations are of native breeds. The Turkish Dog Federation is, however, providing support to nascent groups of owners who wish to promote local breeds. Three breeds of dogs have been registered with the TSI but in general there is little government (at either national or regional level) support for dog breeding although support is provided for other domestic animal species through its “*in vitro* conservation and preliminary molecular identification of some Turkish Domestic Animal Genetic Resources (TURKHAYGEN-I)” (Arat, 2011). There are possibilities that an extension of TUKHAYGEN into a second phase will include some dog breeds but most support will need to come from the private sector as breeders groups and as individuals.

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