

Live weight and some morphological characteristics of Turkish Tazi (Sighthound) raised in Province of Konya in Turkey

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Abstract

This study was carried out to determine the distributions of body coat colour and the body measurements of the Turkish Tazi (Sighthound) raised in province of Konya by comparing with some other Sighthound breeds from different regions of Turkey and UK. To this end, a total of 41 (18 male and 23 female) Tazi dogs was analyzed with the Minitab 16 statistical software program using ANOVA and Student's t-Test. Descriptive statistics for live weight 18.4 ± 0.31 , withers height 62.0 ± 0.44 , height at rump 62.1 ± 0.50 , body length 60.7 ± 0.55 , heart girth circumference 63.9 ± 0.64 , chest depth 23.1 ± 0.21 , abdomen depth 13.9 ± 0.21 , chest width 17.4 ± 0.25 , haunch width 16.4 ± 0.18 , thigh width 22.3 ± 0.26 , tail length 45.7 ± 0.37 , limb length 38.9 ± 0.31 , cannon circumference 10.2 ± 0.11 , head length 24.0 ± 0.36 and ear length 12.8 ± 0.19 cm respectively. In this study the distributions of body coat colour of the sampled Tazi, as percentages, for black was 48.8%, dun 17.1%, brown 19.5%, white 7.3% and piebald 7.3% respectively.

Keywords: Genetic resource, phenotype, body size, coat colour, hunting dog, Turkey

Introduction

Turkey was host to many civilizations in the history because of geographical position like a bridge between continentals of Europe and Asia. Thus many civilizations either lived or passed through this country and created a large array of domestic animal species in the country. There are many species of domestic and companion animal (with different breeds) such as cattle, water buffalo, camels, horses, donkeys, sheep, goat, dogs, cats, rabbit, bees and poultry (Wilson et al., 2011, Yilmaz and Ertugrul 2012c, Yilmaz and Wilson 2012, Yilmaz et al., 2012a,b,c,d,e).

There are 11 dog breeds including Turkish Kangal (Karabash) Shepherd, Turkish Akbash Shepherd, Kars (Caucasian) Shepherd, Koyun, Karaman, Izci Kopegi Zagar, Dikkulak (Civikulak), Zerdava, Fino of Tonya, Turkish Tazi and Tarsus Catalburun (Fork-Nose) Dogs (Yilmaz 2006, Yilmaz 2007b, Yilmaz and Ertugrul 2011a,b,c,d,e, Yilmaz 2012, Yilmaz and Ertugrul 2012a,b,c,d,e,f,g). One of those, Turkish Tazi, is bred in Turkey for centuries (Tepeli and Cetin 2003). At present this breed is mainly bred in provinces of Konya and Sanliurfa (Yilmaz and Ertugrul 2011c). The Turkish Tazi (Sighthound) is a breed that has been primarily bred for hunting. They hunt by using sight and speed, instead of scent and endurance as “scent hounds” do (en.wikipedia.org, 2011). Turkish Tazi is an extremely fast dog, but not hyper-active. It is calm, loyal and tractable (Serpell 1996, Palika 2007, Yilmaz 2008, en.wikipedia.org 2011).

Height and weight of Sighthound breeds from various countries is summarised in Table 1. According to reported weights and sizes, they can be categorized in three groups: big-, mid- and small-sized hounds for height at withers above 70 cm, between 51-70 cm and below 50 cm respectively. Where the environment is concerned, they do not have an undercoat and therefore are less likely to resist cold weather. As a result, especially in the cold season, owners find it advisable to cover their backs with a piece of cloth (Figure 1).

The aim of present study was to define body coat colour and some morphological traits of native Turkish Tazi (Sighthound) raised in Province of Konya.



Fig 1. A Turkish Tazi covered with a piece of cloth. Fig 2. Chest and abdomen depth on a Tazi dog body.

Materials and Methods

Experimental animals

The Tazi dogs included in this study were surveyed in Konya (37° 53'N; 32° 29'E) provinces between November 2010 and January 2011 (www.googleearth.com 2011). The age was informed by their owners. Tazi dogs were aged between 3 months and 7 years, grouped according to their age as 0-11, 12-23, 24-47, and 48-84 months.

Measurements

Dogs were measured for live weight (LW) with a portable spring scale. Linear measures such as withers height (WH), height at rump (HR), body length (BL), chest depth (CD), abdomen depth (AD), chest width (CW), haunch width (HW), thigh width (TW) and limb length (LL) were measured using a measuring stick. Other linear measures such as heart girth circumference (HGC), tail length (TL), cannon circumference

Table 1. The height at withers and body weight of different Sighthound breeds.

Breed	Origin	Withers Height (cm)			Live Weight (kg)		
		Overall	♂	♀	Overall	♂	♀
Afghan Hound (en.wikipedia.org 2011)	Afghanistan		61-73			20-27	
Afghan Hound (Palika 2007)	Afghanistan		68-74	63-69			
Afghan Hound (Palika 2007)	Afghanistan		64-69			23-27	
Afghan Hound (Pugnetti 2001)	Afghanistan		69-74			26-34	
Arabian Greyhound (Anonymous 2005)	Morocco		66-72	61-68			
Borzoi (en.wikipedia.org 2011)	Russia		80*	66*		45-54	
Borzoi (Palika 2007)	Russia	66-81			27-50		
Borzoi (Anonymous 2005)	Russia		75-85	68-78			
Borzoi (Pugnetti 2001)	Russia		75,5	71		34-48	
Chart Polski (en.wikipedia.org 2011), (Palika 2007)	Poland	69-81			30-43		
Chart Polski (Anonymous 2005)	Poland		68-75	70-80			
Galgo Espanol (en.wikipedia.org 2011)	Spain		66-71	64-69		27-30	23-25
Galgo Espanol (Anonymous 2005)	Spain		62-70	60-68			
Galgo Espanol (Pugnetti 2001)	Spain	65-70			30		
Greyhound (en.wikipedia.org 2011)	UK		71-76	68-71		27-40	27-34
Greyhound (Anonymous 2005)	UK		71-76	68-71			
Greyhound (Pugnetti 2001)	UK		71-78	69-71	27-32		
Hungarian Greyhound (Anonymous 2005)	Hungary		65-70	62-67			
Ibizan Hound (en.wikipedia.org 2011)	Spain	61-74			20-29		
Irish Wolfhound (en.wikipedia.org 2011)	Ireland	81-86		71*		54,5*	41*
Irish Wolfhound (Anonymous 2005)	Ireland	81-86	79*	71*		54,5*	40,5*
Irish Wolfhound (Pugnetti 2001)	Ireland	81-86	79	71		54	40
Italian Greyhound (en.wikipedia.org 2011)	Italy	33-38			4-8		
Italian Greyhound (Palika 2007)	Italy	33-38			3-7		
Italian Greyhound (Anonymous 2005)	Italy	32-38			5**		
Italian Greyhound (Pugnetti 2001)	Italy	32-38			5**		
Kyrgyz Taigan (en.wikipedia.org 2011)	Kyrgyzstan		65*	60*			
Magyar Agar (en.wikipedia.org 2011)	Hungary		65-70	62-67	22-31		
Magyar Agar (Pugnetti 2001)	Hungary					27-31	22-26
Pharaoh Hound (en.wikipedia.org 2011)	Malta	53-64			18-27		
Pharaoh Hound (Pugnetti 2001)	Malta		63-70	57-66			
Rampur Greyhound (en.wikipedia.org 2011)	India		60-75	55-60	27-30		
Saluki (en.wikipedia.org 2011), (Palika 2007)	Middle East	58-71			18-27		
Saluki (Anonymous 2005)	Middle East	58-71					
Scottish Deerhound (en.wikipedia.org 2011)	Scotland		75-80	70*		40-50	35-43
Scottish Deerhound (Anonymous 2005)	Scotland		76*	71*		45,5	36,5
Scottish Deerhound (Pugnetti 2001)	Scotland		76	71		39-48	30-36
Sloughi (en.wikipedia.org 2011)	North Africa		66-74	61-69			
Sloughi (Pugnetti 2001)	North Africa	55-75			30-32		
Tuareg Sloughi (en.wikipedia.org 2011)	Western Sahel	61-74			15-25		
Tuareg Sloughi (Anonymous 2005)	Western Sahel		64-74	60-70		20-25	15-20
Turkish Tazi (Tepeli 2003)	Turkey	70			24		
Whippet (en.wikipedia.org 2011)	UK		47-51	44-47	7-14		
Whippet (Anonymous 2005)	UK		47-51	44-47			
Whippet (Pugnetti 2001)	UK		47	44		8-12	5-9

* minimum and ** maximum size of the dog

(CC), head length (HL) and ear length (EL) were measured using a graduated plastic tape (Yilmaz, 2007a). Usually the traits of AD and TW are not common measurements for dogs, but Sighthound dogs have some special breed characteristics on those traits. In Sighthound anatomy, the chest is deeper and the abdomen is narrower than in other dog breeds. It is normally accepted that chest and abdomen depth are usable traits to evaluate the speed of a Sighthound. Secondly speed factor in a Sighthound depends on the strength of its hind legs. Sighthound hind legs are very much different from other dogs. A major difference lies in the proportions of the haunch and thigh of a Sighthound, unlike other dog breeds. The Sighthound thigh is wider, more muscled and developed; hence measuring only the haunch is not enough of an indicator to evaluate the hindquarters of a Sighthound (Fig 3).

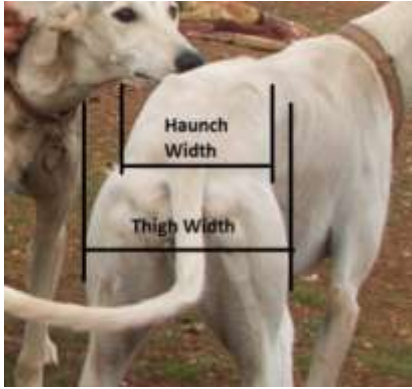


Fig 3. Haunch and thigh width on a Tazi dog body

Statistical analysis

Data were analyzed with the Minitab 16 statistical software program. Descriptive statistics for body sizes were analyzed using the ANOVA and Student's T-Test that also determined the impact of sex, and age group on the response variables of LW, WH, HR, BL, HGC, CD, AD, CW, HW, TW, TL, LL, CC, HL and EL (Anonymous 2011).

Results and Discussions

In this study 41 Turkish Tazi were measured and their body coat colours were observed into black, dun, brown, white and piebald. The frequencies of these are listed in Table 2 below.

Table 2. Distributions of body coat colour of Karabash dogs raised in province of Konya of Turkey

Trait	Black	Dun	Brown	White	Piebald	Overall
n	20	7	8	3	3	41
%	48.8	17.1	19.5	7.3	7.3	100

It can be said that in Turkish Tazi all colour patterns can be seen but generally dark coat colours were common. Black is most common body coat colour (48.8%) whereas white and piebald were the rarest body coat colours.

The effects of sex on phenotypic traits is summarised in table 3. There were nosignificant differences between male and female Tazi dogs for all those traits, but the males were larger than the females in all those traits except the trait of TL.

The means of juvenile (0-11 months) Tazis were lower than older Tazis though there were no significant differences as seen in Table 3. The age group of 12-23 months had the highest values for most of the traits. A possible reason might be that the largest Tazi dogs were randomly grouped in the age group of 12-23 months old.

The present study revealed that Turkish Tazi dogs are mid-size Sighthound dogs. They are lighter in weight than Russian Borzoi (Russia), Irish Wolfhound (Ireland), Chart Polski (Poland), Galgo Espanol (Spain), English Greyhound (UK), Magyar Agar (Hungary), Scottish Deerhound (UK), Sloughi (North Africa), and Turkish Tazi (Turkey). The weight category for Turkish Tazis (Tepeli 2003) obtained from this study agreed with those for the Pharaoh Hound, Saluki and Tuareg Sloughi. The English Whippet and Italian Greyhound are lighter than the Turkish Tazi.

Average withers height (62,0 cm) obtained in this study is shorter than that of Borzoi, Irish Wolfhound, Afghan Hound, Arabian Greyhound, Chart Polski, Galgo Espanol, Greyhound, Ibizan Hound, Kyrgyz Taigan, Magyar Agar, Scottish Deerhound, Sloughi, and earlier measurements for the Turkish Tazi (Tepeli, 2003). With respect to height at withers, the Turkish Tazi is found to be similar in size to the Pharaoh Hound, Rampour Greyhound, Saluki and Tuareg Sloughi, but higher than the English Whippet and Italian Greyhound. The height at rump in the present study (62.1 cm) is lower but length (60.7 cm) and heart girth circumference (63.9 cm) is longer/higher than that reported previously (68 cm height, 49.9 cm long, 63.9 cm heart girth circumference; Tepeli, 2003).

Table 3. Phenotypic traits of Tazis for different sex and age.

Traits	Overall (n=41)	Sex		Age (Month)			
		Male (n=18)	Female (n=23)	0-11 (n=10)	12-23 (n=10)	24-47 (n=10)	48-84 (n=11)
	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$
LW (kg)	18.4 ± 0.31	18.8 ± 2.07	18.1 ± 1.90	18.2 ± 2.24	19.5 ± 2.61	18.0 ± 1.79	18.0 ± 1.40
WH (cm)	62.0 ± 0.44	62.7 ± 2.14	61.4 ± 3.17	60.7 ± 3.50	63.1 ± 2.28	62.9 ± 2.51	61.4 ± 2.42
HR (cm)	62.1 ± 0.50	63.1 ± 2.67	61.4 ± 3.45	61.5 ± 3.69	63.3 ± 2.54	63.1 ± 3.21	60.8 ± 2.99
BL (cm)	60.7 ± 0.55	61.4 ± 2.87	60.2 ± 3.94	59.5 ± 4.33	62.4 ± 1.83	61.3 ± 3.71	59.8 ± 3.43
HGC (cm)	63.9 ± 0.64	65.1 ± 3.78	62.9 ± 4.22	61.0 ± 3.89	65.2 ± 2.39	64.7 ± 3.34	64.5 ± 5.32
CD (cm)	23.1 ± 0.21	23.6 ± 2.73	22.7 ± 2.51	21.4 ± 3.03	24.4 ± 1.43	23.4 ± 3.17	23.1 ± 1.87
AD (cm)	13.9 ± 0.21	14.1 ± 1.51	13.8 ± 1.23	13.2a ± 1.62	14.9b ± 0.57	14.1ab ± 1.29	13.5ab ± 1.21
CW (cm)	17.4 ± 0.25	17.8 ± 1.82	17.2 ± 1.39	17.2 ± 0.47	17.8 ± 1.93	17.2 ± 1.38	17.6 ± 2.15
HW (cm)	16.4 ± 0.18	16.7 ± 1.06	16.1 ± 1.23	15.9 ± 0.75	16.3 ± 0.95	16.5 ± 1.16	16.9 ± 1.58
TW (cm)	22.3 ± 0.26	22.5 ± 1.85	22.1 ± 1.57	21.1A ± 0.99	23.2B ± 1.38	21.4A ± 1.05	23.3B ± 1.95
TL (cm)	45.7 ± 0.79	45.2 ± 5.70	46.2 ± 4.55	44.3 ± 5.72	46.9 ± 4.51	45.1 ± 5.80	46.5 ± 4.39
LL (cm)	38.9 ± 0.31	39.2 ± 2.36	38.7 ± 1.63	39.3 ± 1.25	38.7 ± 2.16	39.5 ± 2.59	38.3 ± 1.68
CC (cm)	10.2 ± 0.11	10.3 ± 0.79	10.1 ± 0.68	10.3 ± 0.86	10.0 ± 0.76	10.5 ± 0.69	10.0 ± 0.59
HL (cm)	24.0 ± 0.36	24.1 ± 2.27	23.9 ± 2.33	24.6 ± 2.09	24.4 ± 2.50	23.2 ± 2.71	23.8 ± 1.81
EL (cm)	12.8 ± 0.19	12.9 ± 1.27	12.8 ± 1.14	12.8 ± 0.92	12.7 ± 1.25	13.2 ± 0.91	12.7 ± 1.59

a, b: P<0.05, A, B: P<0.01.

* There were no significant differences between means showed in same letters of alphabet in same line and factor group.

Conclusion

The present study revealed that the Turkish Tazi is a mid-size Sighthound dog. Black is the most common and white and piebald are the least common body coat colours. This breed is an important animal genetic resource and warrants more research by universities and efforts by government for its preservation for next generations.

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