

SOME MORPHOLOGICAL CHARACTERISTICS OF TURKISH TAZI (SIGHTHOUND)

***YILMAZ Orhan, **ERTUĞRUL Mehmet**

**Iğdir University, Agriculture Faculty, Department of Animal Science, 76100, Iğdir, TURKEY*

***Ankara University, Agriculture Faculty, Department of Animal Science, 06100, Ankara, TURKEY*

ABSTRACT

This study was conducted to determine the distributions of body coat colour and the body measurements of the Turkish Tazi in different sex, region and age groups raised in Turkey. To this end, a total of 122 (60 male and 62 female) Tazi were used. The means of live weight, withers height, height at rump, body length, heart girth circumference, chest depth, abdomen depth, chest width, haunch width, thigh width, tail length, limb length, cannon circumference, head length and ear length were 18.4 kg, 62, 62.2, 60.3, 63.3, 22.8, 14.3, 17.3, 16.2, 21.9, 44.8, 39.2, 10.2, 23.7 and 12.3 cm respectively.

Keywords: Turkish Tazi, sighthound, morphological trait, body measurements, body coat colour.

*Correspondence: zileliorhan62@hotmail.com

Office: +90-4762261314/1225 Fax: +90-4762261139

INTRODUCTION

Dogs were the first domesticated animals around 12.000-15.000 years ago (Ostrander 2008). The Turkish Tazi (Sighthound) is a breed that has been primarily bred for hunting. It hunts by using sight and speed, instead of scent and endurance as 'scent hounds' do (en.wikipedia.org 2011).

Some data were reported for sighthound breeds from various countries. 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.

Big-sized hounds are higher than 70 cm at withers and generally heavier than 40 kg live weight. Russian Borzoi (Russia), English Greyhound (UK), Irish Wolfhound (Ireland), Polish Greyhound (Poland) and Scottish Deerhound (UK) are thus big-sized hounds. Their original habitat is generally harsh, being forests and rugged areas; these dogs are therefore large and rough in appearance and have a good bone structure, rugged feet, thicker skin and coat against tough climates – except for the English Greyhound, which originated in a mild climate. These hounds do not have double coats, unlike most of the other dog breeds. Instead, to protect them from exposure, they have long, shaggy but not fluffy coats (en.wikipedia.org 2011, www.nationmaster.com 2011).

Mid-size hounds are roughly between 51-70 cm at withers, and 20-40 kg in weight. Their original habitat was a generally hot and dry climate, except in the case of the Hungarian hounds. The Afghan Hound (Afghanistan), Arabian Greyhound (Morocco), Galgo Espanol (Spain), Kyrgyz Taigan (Kyrgyzstan), Pharaoh Hound (Malta), Rampur Greyhound (India), Saluki, Sloughi (Middle East), Tuareg Greyhound (Western Sahel), and Turkish Tazi (Turkey) are moderate in size and weight. They have shorter coats than the big-size hounds. They are tolerant of hot, dry weather but not cold weather, and can chill in cool weather. It is accepted that, generally, they are genuine examples of sighthounds (Pugnetti 2001, Anonymous 2005, en.wikipedia.org 2011, www.greyhoundclubofamerica.org 2011 www.nationmaster.com 2011).

Small-sized hounds are lower than 50 cm at withers and generally lighter than 20 kg live weight. Italian Greyhound (Italy) and Whippet (UK) are thus small-sized hounds. Their original habitat are generally plain areas. These dogs are small in appearance and have a thin bone structure (en.wikipedia.org 2011, Palika 2007, Anonymous 2005, Pugnetti 2001).

The distribution of the Turkish Tazi is generally concentrated around the Central (Province of Konya) and Southeast (Province of Sanliurfa) Anatolia regions, but it can be seen in small

quantities also in Iğdir, Kars, Karaman, Ankara and Istanbul provinces. These dogs are reared for their superior hunting skills.

The Turkish Tazi also makes a good pet for humans because of its mild and affectionate character. It can get along well with children and other family pets, including cats. Although the Turkish Tazi are extremely fast dogs, they are not hyper-active. They are calm, loyal and tractable (en.wikipedia.org 2011, Palika 2007, Serpell 1996, Yılmaz 2008). 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.

The objectives of this study were to determine body coat colour and some phenotypic characteristics of native Turkish sighthound, the Tazi.

MATERIALS AND METHODS

Experimental animals

The Tazi included in the study were surveyed in Iğdir (39⁰55'N; 44⁰02'E), Kars (40⁰36'N; 43⁰06'E), Konya (37⁰53'N; 32⁰29'E) and Sanliurfa (37⁰09'N; 38⁰ 48'E) provinces in 2010 and 2011 (www.googleearth.com 2011). This study lasted from November 2010 to January 2011. Ages were determined from the reports of owners. The sampled dogs were aged between 5 months and 6 years, divided in four age groups: respectively 0-12 months, 13-24 months, 25-36 months and above 36 months.

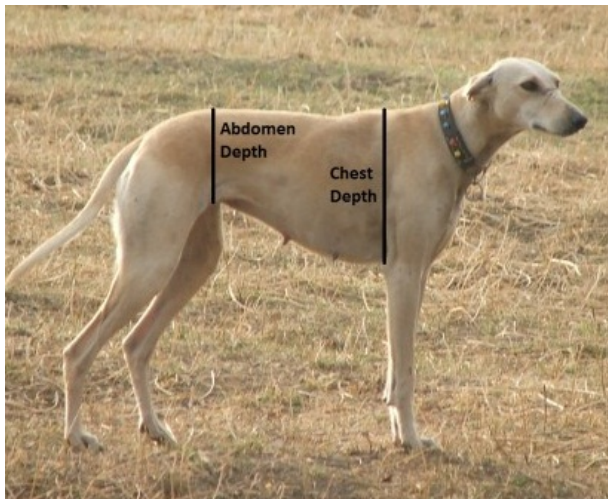


Figure 1. Chest and abdomen depth on a Tazi dog body.

Measurements

Dogs were measured for live weight 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 (CC), head length (HL) and ear length (EL) were measured using a graduated plastic tape (Yılmaz 2007). AD and TW are not usual measurements taken for dogs, but sighthound dogs have some special breed characteristics on these traits. In sighthound anatomy, the chest is deeper and the abdomen is narrower than in other dog breeds as seen in Figure 1. It is normally accepted that chest and abdomen depth are usable traits to evaluate the speed of a sighthound. The second speed factor in a sighthound is the strength of its hind legs. Sighthound hind legs are very different to other dog hind legs. A major difference lies in the proportions of the haunch and thigh of a sighthound, unlike other dog breeds as seen in Figure 2. 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.

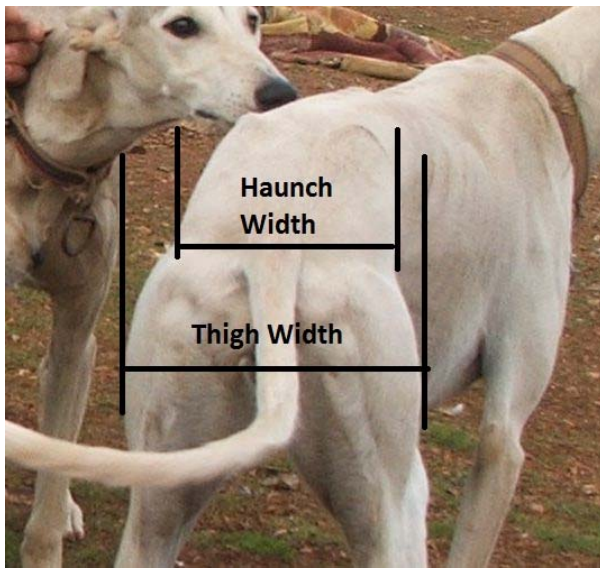


Figure 2. Haunch and thigh width on a Tazi dog body.

Statistical analysis

Data were analyzed with the Minitab 15 statistical software program. Descriptive statistics for body dimensions were analyzed using ANOVA and Student’s t-Test that also determined the impact of sex, region, body coat colour, 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).

Table 1. Descriptive statistics and comparison results of the phenotypic traits of Tazis for different body coat colours.

Trait	Body coat colour					
	Black	Dun	Brown	Cream	White	Pied
	n=43 (35.2%)	n=31 (25.4%)	n=15 (12.3%)	n=13 (10.7%)	n=10 (8.2%)	n=10 (8.2%)
	$\bar{X} \pm S_x$	$\bar{X} \pm S_x$	$\bar{X} \pm S_x$	$\bar{X} \pm S_x$	$\bar{X} \pm S_x$	$\bar{X} \pm S_x$
LW (kg)	17,7 ± 0,31a	19,1 ± 0,43a	18,5 ± 0,36a	18,5 ± 0,35a	18,6 ± 0,63a	18,7 ± 0,96a
WH (cm)	60,8 ± 0,56a	63,3 ± 0,81a	62,1 ± 0,57a	62,3 ± 0,85a	63,4 ± 1,13a	61,2 ± 1,51a
HR (cm)	61,0 ± 0,58a	63,3 ± 1,89a	63,2 ± 0,74a	62,4 ± 0,89a	63,5 ± 0,99a	61,4 ± 1,37a
BL (cm)	59,1 ± 0,67a	61,3 ± 0,89a	61,8 ± 0,87a	60,3 ± 0,95a	61,6 ± 0,95a	59,0 ± 1,45a
HGC(cm)	61,9 ± 0,69a	64,4 ± 0,95a	64,1 ± 0,97a	65,2 ± 1,32a	63,6 ± 0,88a	61,9 ± 1,15a
CD (cm)	21,7 ± 0,44b	24,1 ± 0,62a	23,3 ± 0,46ab	22,5 ± 0,65ab	23,6 ± 0,65ab	22,2 ± 0,98ab
AD (cm)	13,9 ± 0,26a	14,5 ± 0,26a	14,5 ± 0,36a	15,0 ± 0,41a	13,8 ± 0,39a	14,6 ± 0,54a
CW (cm)	17,1 ± 0,28a	17,5 ± 0,32a	17,4 ± 0,30a	17,7 ± 0,58a	17,4 ± 0,68a	17,4 ± 0,26a
HW (cm)	16,0 ± 0,20a	16,3 ± 0,26a	16,5 ± 0,38a	16,4 ± 0,23a	16,2 ± 0,33a	16,1 ± 0,35a
TW (cm)	22,1 ± 0,31a	21,5 ± 0,33a	21,7 ± 0,27a	22,5 ± 0,55a	22,0 ± 0,75a	22,1 ± 0,41a
TL (cm)	45,2 ± 0,62abc	43,3 ± 0,73d	47,6 ± 0,98a	43,1 ± 0,85cd	46,5 ± 1,05ab	43,7 ± 1,14bcd
LL (cm)	39,1 ± 0,33a	39,3 ± 0,46a	38,8 ± 0,43a	39,8 ± 0,51a	39,8 ± 0,73a	39,0 ± 0,73a
CC (cm)	10,2 ± 0,12a	10,3 ± 0,13a	10,4 ± 0,19a	10,2 ± 0,23a	10,1 ± 0,28a	10,0 ± 0,26a
HL (cm)	23,7 ± 0,34a	24,5 ± 0,42a	23,2 ± 0,60a	24,6 ± 0,61a	21,6 ± 0,70a	22,9 ± 0,68a
EL (cm)	12,7 ± 0,19b	12,5 ± 0,24ab	11,8 ± 0,32ab	12,2 ± 0,39ab	11,5 ± 0,51b	11,5 ± 0,51b

a,b: (P<0.05), c, d: (P<0.01)

There were no significant differences between means showed in same letters within a row and factor group

RESULTS and DISCUSSION

In this study 122 Turkish Tazi overall were measured, and their body coat colours were divided into black, dun, brown, cream, white and pied. The frequencies of these are listed as seen in Table 1. Among Turkish Tazis all colour patterns can be seen but generally dark coat colours are common. The most common body coat colour, about 60% in total, was black and dun. White and pied were the rarest body coat colours. There were significant differences among body coat colours for traits of TL (P<0.01) and CD, and EL (P<0.05).

Table 2. Descriptive statistics and comparison results of the phenotypic traits of Tazis for different sexes, regions, and ages.

Trait	Sex			Region			Age (Month)			
	Male (n=60)	Male (n=60)	Female (n=62)	Southeast (n=62)	Central (n=41)	East (n=19)	0-12 (n=49)	13-24 (n=35)	25-36 (n=19)	<36 (n=19)
	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$	$\bar{X} \pm S_{\bar{X}}$
LW (kg)	18,4 ± 0,19	19,0 ± 0,25a	17,8 ± 0,28b	18,6 ± 0,26a	18,4 ± 0,31a	17,6 ± 0,65a	17,8 ± 0,34a	18,7 ± 0,37a	18,9 ± 0,29a	18,9 ± 0,43a
WH (cm)	62,0 ± 0,35	63,1 ± 0,47a	61,0 ± 0,48b	62,5 ± 0,49a	62,0 ± 0,44a	60,4 ± 1,23a	60,8 ± 0,64a	62,9 ± 0,63b	62,7 ± 0,68ab	62,7 ± 0,51ab
HR (cm)	62,2 ± 0,35	63,1 ± 0,50a	61,4 ± 0,47b	62,8 ± 0,48a	62,1 ± 0,50a	60,6 ± 1,18a	61,0 ± 0,63a	63,1 ± 0,63b	63,3 ± 0,75ab	62,6 ± 0,63ab
BL (cm)	60,3 ± 0,39	61,3 ± 0,53a	59,4 ± 0,55b	60,9 ± 0,54b	60,7 ± 0,55b	57,7 ± 1,24a	59,0 ± 0,67a	61,5 ± 0,72b	61,2 ± 0,94ab	60,9 ± 0,61ab
HGC(cm)	63,3 ± 0,42	64,5 ± 0,56a	62,2 ± 0,59b	63,5 ± 0,57a	63,9 ± 0,64a	61,5 ± 1,30a	61,1 ± 0,65a	65,1 ± 0,73b	63,5 ± 0,68b	65,3 ± 1,01b
CD (cm)	22,8 ± 0,27	23,3 ± 0,35a	22,2 ± 0,39b	22,8 ± 0,36a	23,1 ± 0,41a	21,9 ± 0,90a	21,8 ± 0,47a	23,7 ± 0,50b	22,5 ± 0,53ab	23,6 ± 0,40ab
AD (cm)	14,3 ± 0,14	14,5 ± 0,20a	14,1 ± 0,20b	14,4 ± 0,21a	13,9 ± 0,21a	14,5 ± 0,39a	13,9 ± 0,22a	14,5 ± 0,22a	14,7 ± 0,42a	14,4 ± 0,40a
CW (cm)	17,3 ± 0,16	17,7 ± 0,22a	17,0 ± 0,22b	17,3 ± 0,20a	17,4 ± 0,25a	17,3 ± 0,55a	16,7 ± 0,18a	17,8 ± 0,35b	17,4 ± 0,27ab	18,1 ± 0,47b
HW (cm)	16,2 ± 0,12	16,3 ± 0,15a	16,1 ± 0,18a	16,1 ± 0,16a	16,4 ± 0,18a	16,2 ± 0,39a	15,5 ± 0,18a	16,5 ± 0,15b	16,4 ± 0,26ab	17,2 ± 0,31c
TW (cm)	21,9 ± 0,17	22,0 ± 0,24a	21,8 ± 0,23a	21,7 ± 0,23a	22,3 ± 0,26a	21,7 ± 0,55a	21,3 ± 0,26a	22,1 ± 0,30a	21,5 ± 0,28a	23,5 ± 0,42a
TL (cm)	44,8 ± 0,37	45,0 ± 0,53a	44,6 ± 0,51a	44,6 ± 0,41a	45,7 ± 0,79a	43,3 ± 0,89a	44,5 ± 0,64a	44,7 ± 0,60a	44,8 ± 0,77a	45,7 ± 1,05a
LL (cm)	39,2 ± 0,20	39,8 ± 0,26a	38,7 ± 0,29b	39,7 ± 0,25b	38,9 ± 0,31ab	38,4 ± 0,69a	39,0 ± 0,31a	39,2 ± 0,44a	40,2 ± 0,36a	39,1 ± 0,41a
CC (cm)	10,2 ± 0,07	10,5 ± 0,10a	10,0 ± 0,08b	10,3 ± 0,09a	10,2 ± 0,11a	10,0 ± 0,34a	9,9 ± 0,13a	10,4 ± 0,11b	10,6 ± 0,11ab	10,3 ± 0,15b
HL (cm)	23,7 ± 0,21	23,9 ± 0,33a	23,4 ± 0,28a	23,8 ± 0,29a	24,0 ± 0,36a	22,7 ± 0,59a	23,8 ± 0,34a	23,7 ± 0,38a	22,8 ± 0,68a	24,1 ± 0,40a
EL (cm)	12,3 ± 0,1	12,4 ± 0,18a	12,2 ± 0,18a	12,2 ± 0,17ab	12,8 ± 0,19b	11,5 ± 0,36a	12,5 ± 0,17a	12,1 ± 0,24a	11,8 ± 0,37a	12,4 ± 0,36a

a,b: (P<0.05), c: (P<0.01)

There were no significant differences between means showed in same letters within a row and factor group

The effects of sex, region, and age on phenotypic traits are given in Table 2. Related to the t-Test results, there were significant differences between male and female Tazis for LW, WH, HGC,

and CC ($P<0.01$) and HR, BL, CD, CW, and LL ($P<0.05$). For all significant traits, male dogs yielded higher results than females.

The impact of region on live weight and body sizes are also given in Table 2. The Tazi in East of Turkey were significantly different from others on measurements for BL, LL and EL ($P<0.05$).

The means of juvenile (0-12 months) Tazis were significantly different from other groups on the traits of WH, HR, BL, HGC, CD, CW, HW and CC ($P<0.05$). After 12 months, there were only minor differences for body growth and dimensions.

In conclusion, the overall results of the current study reveal that the Turkish Tazi is a mid-size sighthound dog. After 12 months, body growth rate decelerates, and after 24 months of age there is only a minor growth rate. This suggests that Turkish Tazis reach mature body weight and size around 2 years of age. Black and dun colours are in the majority.

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