

A survey on morphological traits of Basset Hound dogs raised in Italy

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INTRODUCTION

The Basset Hound is a short-legged breed of dog of the hound family. They are scent hounds, bred to hunt rabbits by scent. Their sense of smell for tracking is second only to that of the Bloodhound. The name Basset is derived from the French word bas, meaning "low", with the attenuating suffix -et, together meaning "rather low". These dogs are around 1 foot in height at the withers. They usually weigh between 35-70lbs. They have smooth, short-haired coats but a rough haired hound is possible. They have long, downward ears and powerful necks, with much loose skin around their heads that forms wrinkles. The aim of the present work was to report the first results of a survey on morphological traits of Basset Hound dogs reared in Italy, as a part of a more comprehensive study whose objective is to identify morpho-functional attributes having the greatest potential of being genetically improved.

MATERIALS AND METHODS

Body measures were taken from 48 adult (mean age 2.78 ± 1.71 years) Basset Hound dogs (24 males and 24 females). The animals belonged to four different farms. For each animal, the following biometrical measurements were considered: withers height, chest height, chest depth, trunk length, rump length, ischium width of the rump, ear and nose length, chest and cannon circumference. ANOVA was used to test the differences between males and females for morphological measurements (sex and farm as fixed factors and age at measurements as covariate). A simple correlation method was thus applied to the least square means.



RESULTS

Table 1 - Differences between females and males for morphological measurements.

		FEMALES		MALES	
		mean	s.d.	mean	s.d.
Body measures					
Withers height	cm	35.9	1.35	36.0	1.80
Chest circumference	cm	72.5	4.33	71.6	5.31
Chest depth	cm	32.6	0.93	32.6	0.90
Cannon circumference	cm	17.4	0.43	17.5	0.41
Trunk length	cm	58.7	0.88	58.5	1.05
Length of the rump	cm	22.7	0.42	28.8	0.52
Ischium width of the rump	cm	31.6	0.65	31.4	0.93
Ear lenght	cm	23.4	0.75	23.3	0.65
Nose lenght	cm	11.0	0.58	10.8	0.59

No significant differences were observed among farms and between sexes.

In this study withers height was positively related to chest height ($r=0.40$; $P<0.01$) and to cannon circumference ($r=0.29$; $P<0.05$) while it was inversely related to trunk and nose length ($r=-0.33$ and -0.32 respectively, $P<0.05$). Significant and positive correlations were also observed with trunk length and nose length ($r=0.384$; $P<0.01$) and with chest circumference and chest depth ($r=0.299$ and $r=0.354$ respectively; $P<0.05$).

Table 2- Differences in morphological measurements among farms.

		FARM 1	FARM 2	FARM 3	FARM 4	P	SEM
Animals	n°	15	12	8	13		
Body measures		mean	mean	mean	mean		
Withers height	cm	36.1	35.3	36.9	35.4	ns	1.56
Chest circumference	cm	71.5	72.2	71.7	73.1	ns	4.96
Chest depth	cm	32.7	32.9	32.2	32.7	ns	0.97
Cannon circumference	cm	17.5	17.3	17.3	17.6	ns	0.42
Trunk length	cm	59.0	58.5	58.4	58.6	ns	0.98
Length of the rump	cm	22.8	22.7	22.7	22.8	ns	0.49
Ischium width of the rump	cm	31.5	31.5	31.5	31.4	ns	0.84
Ear lenght	cm	23.1	23.3	23.6	23.3	ns	0.71
Nose lenght	cm	10.9	10.9	10.8	11.0	ns	0.60

