

## Morphometric Characterization of Kanni Dog - An Indigenous Hound Breed of Southern Tamil Nadu

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Virudhunagar district of Southern Tamil Nadu in India is a habitat and breeding tract for three recognized indigenous breeds of dogs namely Rajapalayam, Kanni and Chippiparai. Kanni is a promising indigenous breed known for its fascinating human companionship and hunting abilities. Though, the intensive breeding tract of Kanni dog is Virudhunagar, Tuticorin and Tirunelveli districts, it is slowly getting familiarized among pet lovers and being spread throughout Tamilnadu state. Morphologically, it is a slim, agile, graceful dog with lean built body, sharp and slender nose, deep chest with tugged up abdomen characteristics suitable for effective hunting. Kanni is found in various coat colours viz., black and tan, tan, cream and fawn are seen in these pockets. Kanni is also a well suited breed for human companionship because of its obedience and loyalty qualities.

Due to its long term association with community living, it can get along well with children and other family pets. Although Kanni breed of dog possesses the qualities of a promis-

ing hunting dog, the basic documentation about this breed in terms of biometry and productive life is very scanty. The domestic dog exhibits the greatest morphologic diversity of any mammal (Moody *et al.* 2006). Keeping that in mind, a study was carried out in the breeding tract to document the basic biometry of Kanni breed of dog.

### Materials and Methods

The survey was carried out in intensive breeding tracts of Kanni dog *ie* Sevalpatty village of Virudhunagar District and Thiruvengadam village of Tirunelveli district in 2011. Eighty one Kanni dogs of different age groups maintained under normal managemental environment by different families were randomly selected and identified for recoding the physical measurements of dog. Age of the dog was recorded based on the careful personal interaction and by the available records with the breeders. The live weight of the dog was recorded using portable digital spring weighing scale to the accuracy of



**Fig 1.** Kanni dog - Black, Fawn colour

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**Fig 2.** Kanni dog - Tan colour

one gram. The basic biometrical measurements were recorded in the normal standing position of the dog using graduated plastic tape to the accuracy of one cm. Apart from the weight, the other parameters collected were Height at withers (Distance between withers and ground at standing), Length of back (Distance between base of the neck and base of the tail), Girth (Circumference around the widest part of rib cage), Circumference of the head (Head circumference at the widest part), Circumference of the neck (Neck circumference at base of neck) and Length of the neck (Distance between base of neck and just base of ears).

The data collected were grouped sex and age wise and subjected to standard statistical analysis in the form of Mean +SE, Coefficients of variation (CV) were worked out to measure the variations.

## Results and Discussion

The mean adult live weight (one year of age) of male and female was  $23.50 \pm 1.59$  and  $18.15 \pm 1.18$  kg and in all stages of age. Males are generally larger than females, as is evident in some of the breed height measurements. However it was observed that 9<sup>th</sup> month body weight was almost 85-90 per cent of adult body weight indicating the rapid growth up to 9 months of age. The highest weight was achieved in second year of age (24.33 and 20.64 kg) in males and females. Yilmaz *et al.* (2007) classified the hound dogs based on height at withers as small (less than 50 cm and less than 20 kg bw), mid (51-70 cm and 20-40 k bw) and big (more than 70 cm and heavier than 40 k bw) hounds and in this class, Kanni can be classified as mid sized hound dog. The mid sized hounds are of shorter coat than the big-sized hounds (Pugnetti 2001).

The mean height at withers and length of back of adult male and female was  $66.10 \pm 1.29$ ,  $58.92 \pm 1.58$  and  $59.30 \pm 1.37$ ,  $55.85 \pm 1.42$  cm respectively. The chest girth of male ( $67.20 \pm 1.37$  cm) was also higher than female ( $60.69 \pm 1.52$  cm) in adult dog which may be due to continuous and severe involvement in outdoor physical activities. With respect to height at withers, the Kanni dog was found to be similar in size

of Afghan hound (Yilmaz *et al.* 2011) where the males are 61-73 cm and females are 63-69 cm. In Grey hound, the height is 68-76 cm (Bryan Richard, 2006). The length of back was in the range of 55-60 cm in males and 53-58 cm in females. In Turkish Tazi (Sight hound), the length is  $60.3 \pm 0.39$  cm. (Yilmaz *et al. loc.cit*). The chest girth of adult male dog was around 69 cm and for female it was 63 cm. The chest girth is an useful trait for the hound breeds.

The circumferences of head and neck in adult (One year of age) male and female were  $36.80 \pm 1.18$ ,  $40.40 \pm 1.20$  and  $34.69 \pm 0.74$ ,  $36.46$  cm respectively revealing that the circumferences of head and neck were almost similar. The length of neck was 22.80 and 20.38 cm in adult male and female dogs. The features of slender, long, head and neck make Kanni dog more suitable as a hound dog.

## Summary

The morphometric data of Kanni dog indicate its uniqueness as a distinctive indigenous hound dog breed. The dogs are maintained by the agricultural labour. The traditional and time tested breeding practices followed by them have helped to conserve the purity of this breed. The dog owners have simply kept the bitches inside the house during the mating period and the mating is always done with the selective male dog. The current study revealed that the Kanni dog breed is a mid sized hound dog. After 12-18 month of age, the body growth rate slows down and after two year there is only a minor growth rate.

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