

DOI No.: <http://doi.org/10.53550/AJMBES.2024.v26i01.018>

## KATCHAIKATTY BLACK – A UNIQUE INDIGENOUS SHEEPBREED OF TAMIL NADU, INDIA

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(Received 12 September, 2023; Accepted 1 November, 2023)

**Key words:** *Katchaikatty black sheep, Habitat and Distribution, Breed characteristics, Breeding management; Conservation*

**Abstract**– Katchaikatty Black Sheep is a registered indigenous breed of sheep, native to the Madurai district of Tamil Nadu. It is also called Katchaikatty Karuppuaadu and Muttaadu. The breed is reared mainly for meat, manure, penning and sheep hair. Rams are widely popular for Ram-fight during village festivals or sports. The animals are medium sized with compact body and hair colour is completely black. Coat type is hairy. Face is modest in length, concave and have depression. Tail is petite and lean. Rams have twisted horns and ewes are polled. Ears of the breed are very peculiar as rudimentary and or leaf like ears. The breed is identified based on size of ear and horn and called as diverse categories viz. Mooli Adu, Sonaiyadu, Ilaikattu Adu, Kenambadu. The overall mean body weight of the sheep is 35.75 kg and 26.74 kg for male and female, respectively. For conservation of this breed, In-situ and Ex-Situ approaches can be considered and more prominence should be given to In-situ conservation at farmer stages by planning community-based selective breeding.

### INTRODUCTION

India has vast farm animal genetic resources diversity, represented by 212 registered livestock and poultry species, which include 53 cattle, 20 buffalo, 37 goat, 44 sheep, 7 horses and ponies, 9 camel, 13 pig, 3 donkey, 3 dog, 1 yak, 19 chicken, 2 duck and 1 geese. Among various livestock, small ruminants play a significant role in livelihood security and economic viability of landless labourers, small and marginal farmers in harsh climatic conditions. Bestowing to 20<sup>th</sup> Livestock census report, India has 74.26 million sheep which constitute 13.87% of total livestock population. The sheep population has augmented by 14.13% over earlier census (65.07 million) (Bhateshwar *et al.*, 2022). Out of 44 registered breeds sheep Tamil Nadu is endowed ten breeds, namely with Coimbatore, Kilakarsal, Madras Red, Mecheri, Nilgiri, Ramnad White, Tiruchi Black, Vembur, Katchaikatty Black and Chevaadu. Katchaikatty Black Sheep is a registered *indigenous breed* of sheep, native to the Madurai district of Tamil Nadu (ICAR-

National Bureau of Animal Genetic Resources, Karnal, Accession Number INDIA\_SHEEP\_1800\_KATCHAIKATTYBLACK\_14040) (NBAGR, 2023). The breed is reared mainly for meat, manure, and sheep hair. Rams are famous for fighting during village festivals or sports.

### NATURAL HABITAT AND DISTRIBUTION

Katchaikatty Black sheep are kept in small flocks in Katchaikatty, Kutladampatti, BodiNaickenpatti, Viralipatti villages, Kulasekarankottai in Vadipatti Taluk of Madurai district. This breed is also distributed in the adjoining districts. The name of the breed is derived from the name of village Katchaikatty in Vadipatti block of Madurai district, Tamil Nadu, India. This breed is also called Katchaikatty Karuppuaadu and Muttaadu (Yadav *et al.*, 2017).

### BREED CHARACTERISTICS

Katchaikatty black sheep are middle size with

compact body and hair colour is completely black. Coat is hairy. Face is moderate in length, concave and have depression, forehead is broad. Tail is petite and slim. Rams have twisted horns (length: 32 cm) which are widespread and twisted outwards and ewes are polled, Ears of the breed are very peculiar as rudimentary and leaf like or stumpy ears. The breed is recognized based on ear and horn and termed as diverse types viz. Mooli Adu, Sonaiyadu, Ilaikattu Adu, Kenambadu. The overall mean height of the sheep is 80.8 cm and 74.1 cm for male and female, respectively. The average body length of the sheep is 71.1 cm and 65.5 cm for male and female, respectively. The overall mean heart girth of the sheep is 84.9 cm and 76.6 cm for male and female, respectively. The ear length is 6.4 cm and tail length is 10.5 cm. The average birth weight of the sheep is 2.8 kg and 2.25 kg for male and female, respectively. The overall mean adult body weight of the sheep is 35.75 kg and 26.74 kg for male and female, respectively (Sandhya *et al.*, 2020).

#### UTILITY

The breed is reared mainly for meat and manure. The breed is more suitable for penning in farmers' fields. Rams are well known for fighting. Income for the farmer from this breed are from penning for providing manure in farmers' fields, sale of male lambs for sheep fighting and sale of female lambs for farmers.

#### BREEDING MANAGEMENT

In general, few male kids reserved for breeding and most of the female kids kept as a herd replacement. The male kids are selected at the age of 4 to 6 months, based on the body color, body weight and ear type. Male kids with better growth rate and complete black color are retained for the future breeding and other male kids are castrated. The old males are sold at nine to ten years of age. Usually, bucks are retained for mating for three to five years of age and the does are used for breeding until two to five years of age.

#### SOCIO-ECONOMIC STATUS OF THE KATCHAIKATTY BLACK SHEEP FARMERS

The most important problems faced by Katchaikatty Black sheep farmers are shrinking of grazing land, high price of feed and fodder and lack of timely

diagnosis and treatment during disease outbreak. The dilution of breeds is resultant from uncontrolled inter-mixing among them and absence of any planned policies for conservation of indigenous breeds. Katchaikatty Black sheep is well adapted to the agro-climatic conditions of the region and contributes to the subsistence of the poor farmers. Examination of status and characterization of indigenous sheep genetic resources is an vital step in management of domestic animal diversity and developing strategies for their conservation. Majority of the sheep farmers are landless poor and the flocks are large in size (Vivekanandan, 2014).

#### CONSERVATION OF KATCHAIKATTY BLACK SHEEP

Conservation of livestock is the preservation, protection, and management of animals to the benefit of the environment and other organisms that rely on them. In-situ or Ex-situ conservation can be used to avert the animals from loss of genetic diversity. In-situ is preserving live animals in their native environments while Ex-situ preserving animals out of native tract in the form of live animals (In-vivo) or germplasm (In-Vitro ova, semen, and embryo) with cryopreservation



Fig. 1. Katchaikatty Black Sheep



Fig. 2. Katchaikatty Black Sheep – RAM



Fig. 3. Katchaikatty Black Sheep – EWE

techniques. The population of Katchaikatty black sheep is around 2000 in its breeding tract during few years ago, and the reduction in sheep population due to non-availability of grazing areas. The deficiency of good rams for breeding and indiscriminate breeding with other breeds in that area are other reasons of declining in the population. The decreasing population trend is alarming as the breed is in critically endangered class and may become extinct soon if appropriate actions for its conservation not applied properly (Chaudhari *et al.*, 2017). For Katchaikatty black sheep conservation, both In-situ and Ex-Situ conservation strategies can be considered but the importance should be given to In-situ conservation at farmers field levels by planning community-based selective breeding. Katchaikatty sires with proven worth need to be produced and supplied to



Fig. 4. Katchaikatty Black Sheep – Flock

farmers encouraging them to breed these sheep in large numbers.

## CONCLUSION

The study reveals that the Katchaikatty Black sheep is a meat type sheep which is phenotypically diverse from other breeds of the Tamil Nadu state. The unique phenotypic appearance is colour of hairs is complete black and Rams have twisted horns and ewes are polled. The farmers prefer this sheep for penning in the agricultural fields. The Katchaikatty Black sheep population needs to be improved and propagated by using elite breeding rams. Breed improvement programmes through selective breeding need to be undertaken in the area. Farmers need to be educated in better feeding, health care practices, and suitable genetic management. Strengthening of local markets for animal products is very much essential. More importance should be applied to In-situ conservation of Katchaikatty Black sheep at farmer fields level by planning community-based selective breeding.

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