



Phenotypic characterization of Macherla goat of Andhra Pradesh

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Supplementary Table 1. Details on the location and number of animals sampled

District	Mandal	Village	Number of flocks	Bucks	Does	Kids
PALNADU	Dachepalli	Bhatrapalem	3	6	32	4
		Tangeda	2	3	8	5
		Ramapuram	2	4	22	2
	Gurazala	Daida	2	4	16	2
	Durgi	Durgi	3	4	24	2
	Veldurthi	Mandadi	4	2	76	18
		Uppalapadu	4	-	80	15
	Ipur	Kondramutla	2	4	18	2
		Muppalla	3	6	20	2
		Ipuru	2	2	12	4
	Rompicherla	Santhagudipadu	2	4	16	3
		Rompicherla	2	3	19	3
	Savalyapuram	Karumanchi	2	2	17	4
		Velupuru	2	1	16	2
	Narsaraopeta	Ravipadu	3	3	36	4
		Narsaraopeta	2	3	17	2
	Amaravati	Vykuntapuram	2	-	22	3
		Peddammadduru	2	2	14	5
	Nekarikallu	Nekarikallu	3	5	21	12
	Krosuru	Krosuru	2	-	19	5
		Gudipadu	2	1	28	3
	Atchampeta	Atchampeta	2	2	12	10
		Velpuru	2	3	14	1
Guntur	Thulluru	Thulluru	3	4	25	6
Total			58	68	584	119

Supplementary Table 2. Morphological characteristics of Macherla goats across the districts

Characteristic	Palnadu		Guntur		Total	
	N	%	N	%	N	%
Head type						
Slightly convex	682	88.5% (92.6%)	35	4.5% (100%)	717	93.0%
Straight	54	7.0% (7.3%)	0	0.0% (0.0%)	54	7.0%
Hornorientation						
Back	207	37.8% (39.7%)	15	2.7% (57.7%)	222	40.5%
Back and down	261	47.7% (50.1%)	9	1.7% (34.6%)	270	49.4%
Back and forward	11	2.0% (2.1%)	1	0.2% (3.9%)	12	2.2%
Back and outward	9	1.7% (1.7%)	1	0.2% (3.9%)	10	1.9%
Back down out	19	3.5% (3.7%)	0	0.0% (0.0%)	19	3.5%
Upward	14	2.6% (2.7%)	0	0.0% (0.0%)	14	2.6%
Horn shape						
Straight	209	38.2% (40.1%)	13	2.4% (50%)	222	40.6%
Curved	312	57.0% (59.9%)	13	2.4% (50%)	325	59.4%
Coat colour Pattern						
Plain	93	13.1% (12.6%)	0	0.0% (0.0%)	93	12.0%
Patchy	617	76.0% (83.9%)	35	4.5% (100%)	652	84.6%
Spotted	26	6.4% (3.5%)	0	0.0% (0.0%)	26	3.4%
Body coat colour						
White (single colour)	46	6.0% (6.3%)	0	0.0% (0.0%)	46	6%
Black (single colour)	13	1.7% (1.8%)	0	0.0% (0.0%)	13	1.7%
Brown (single colour)	34	4.4% (4.6%)	0	0.0% (0.0%)	34	4.4%
Black and white (Bi colour)	25	3.2% (3.4%)	4	0.5% (11.4%)	29	3.7%
Brown and white (Bi colour)	78	10.2% (10.6%)	2	0.2% (5.7%)	47	10.4%
Brown, black and white (Multi colour)	514	66.7% (69.8%)	29	3.8% (82.9%)	543	70.5%
Hair coat type						
Smooth	711	92.2% (96.6%)	35	4.5% (100%)	746	96.8%
Rough	25	3.2% (3.4%)	0	0.0% (0.0%)	25	0.0%
Back						
Straight	106	13.7% (14.4%)	3	0.4% (8.6%)	109	14.1%
Slope	613	79.5% (83.3%)	32	4.2% (91.4%)	645	83.7%
Dipped	17	2.2% (2.3%)	0	0.0% (0.0%)	17	0.0%
Tail type						
Bunchy	76	9.9% (10.3%)	4	0.5% (11.4%)	80	10.4%
Slender	660	85.6% (89.7%)	31	4.0% (88.6%)	691	89.6%
Tail Shape						
Curved	150	19.5% (20.4%)	5	0.6% (14.3%)	155	20.1%
Straight	586	76.0% (79.6%)	30	3.9%(85.7%)	616	79.9%
Teat shape						
Cylindrical	457	76.8% (80.3%)	21	3.5% (80.8%)	478	80.3%
Funnel	94	15.8% (16.5%)	4	0.7% (15.4%)	98	16.5%
Pear	18	3.0% (3.2%)	1	0.2% (3.8%)	19	3.2%

*Values in parenthesis indicate the percentage within the districts

Supplementary Table 3. Morphological characteristics of Macherla goats based on sex

Characteristic	Female		Male		Total	
	N	%	N	%	N	%
Back						
Dipped	17	2.2%	0	0	17	2.2%
Slope	564	73.2%	81	10.5%	645	83.7%
Straight	86	11.2%	23	3.0%	109	14.1%
Tail type						
Bunchy	70	9.1%	10	1.3%	80	10.4%
Slender	597	77.4%	94	12.2%	691	89.6%
Tail shape						
Curved	127	16.5%	28	3.6%	155	20.1%
Straight	540	70.0%	76	9.9%	616	79.9%
Beard						
Absent	655	85.0%	46	6.0%	701	90.9%
Present	12	1.6%	58	7.5%	70	9.1%



Supplementary Fig. 1. Horn orientation in Macherla goat

a) Back; b) Back and down; c) Back and forward; d) Back and outward; e) Upward; f) Back down out