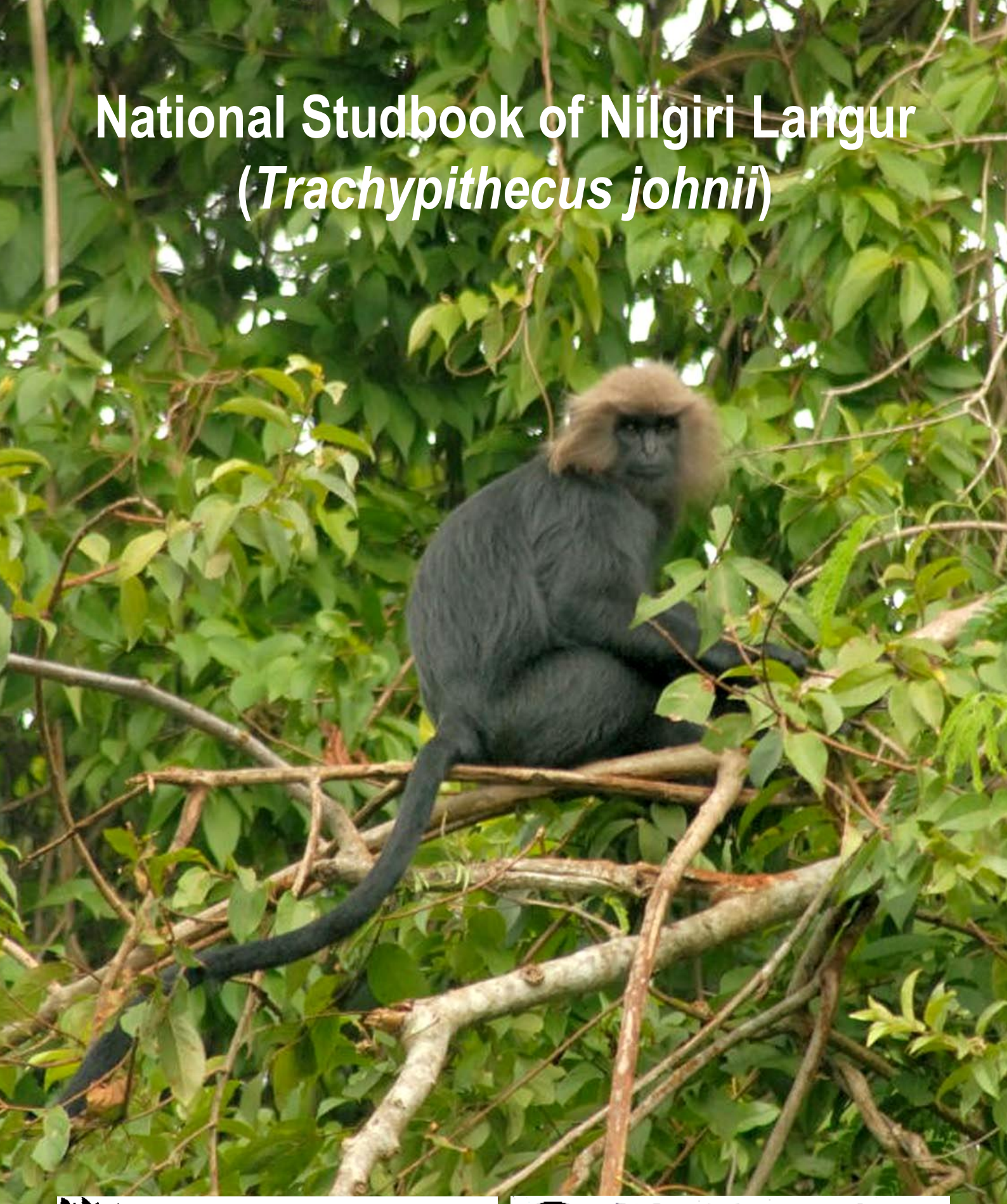
National Studbook of Nilgiri Langur (*Trachypithecus johnii*)



भारतीय वन्यजीव संस्थान
Wildlife Institute of India

केन्द्रीय चिड़ियाघर प्राधिकरण
Central Zoo Authority

May, 2011

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Studbook compiled and analysed by
Manjari Malviya
Anupam Srivastav
Parag Nigam
P. C. Tyagi

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Authors

Contents

Nilgiri Langur: Biology and Status

Taxonomy

Kingdom:	**Animalia**
Phylum:	**Chordata**
Class:	**Mammalia**
Order:	**Primates**
Family:	**Cercopithecidae**
Scientific Name:	***Trachypithecus johnii***
Species Authority:	**J.Fischer, 1829**
Common Name/s:	**Manthi (Tamil), Karing korangu (Malyalam), Turuni Kodan, Pershk (Toda), Kurri Korunga (Badaga & Kurumba), John's leaf monkey, Black leaf monkey, Hooded leaf monkey**

Nilgiri langur is a threatened black faced colobine that is endemic to Western Ghats in South India. Colobines have a complex foregut, stub thumb and a long tail that distinguish them from other monkeys. Nilgiri langur was earlier placed under genus *Presbytis*, and subsequently placed under genus *Semnopithecus.* However, it is currently included in the genus *Trachypithecus.* Its position is debatable as recent studies indicate that Nilgiri and Purple faced langur are more closely related to Hanuman langur rather than leaf monkeys of South-east Asia and hence should be placed under genus *Semnopithecus* .

Biology

Morphology: The pelage colour of Nilgiri langur is typically glossy black, sometimes blackish brown; however the head (crown, nape and whisker) is yellowish or reddish brown to golden. The rump and base of tail may sometimes be grizzled and the females have a white patch on thigh that is easily discernible. A new born is reddish brown in colour (upto 10 weeks) this characteristic also helps in distinguishing between species groups. Head and body length of males may be 78 – 80 cm, of females may be 58 – 60 cm; and tail may be 68.5 – 96.5 cm long. The body weight of males is varyingly reported between 9.1 – 14.8 kg, and of females between 10.9-12 kg. Like other old world colobine monkeys they have complex foregut with microbial fermentation and enlarged salivary gland for assisting the breakdown of indigestible plant material especially cellulose.

Table 1: Biological attributes of Nilgiri Langur

Attributes	**Male**	**Female**
Head and Body length	78-80 cm	58-60cm
Tail length	68.5-96.5 cm	
Weight	9.1-14.8 kg	10.9-12 kg
Gestation period	200 days*	

*Gestation period for Nilgiri Langur is not known, gestation period is assumed to be similar to closely related Hanuman Langur.

Habitat: The preferred habitat of Nilgiri Langurs are the wetter forest regimes and dense green cover hence they characteristically inhabit the *sholas* or evergreen forest but they may also venture into other habitat types that include semi-evergreen, moist deciduous forests, montane temperate evergreen forests, riverine forest and even teak plantations. In dry deciduous forest they however occur at lower densities (1.4 groups/km^2) as compared to evergreen forest habitat (4 groups/km^2). Their altitudinal range is approx. 300-2000 m, being more common above 500 msl. They spend most of their time in the core area of their home range which consists of feeding, resting and sleeping sites. Studies suggest a change in the core area of their activity seasonally, with a strong preference for evergreen areas during January and February. They have certain preferred resting area for midday and night time which also may change according to the season. Sleeping sites are selected on the basis of their proximity to water and distance to human settlement. The males sleep on the highest branch followed by female below them and sub- adults on the lowest branches. As a precaution against predation they sleep away from the main trunk. They are mostly spotted on medium height (Mean 12.2 m) trees, a preference for which is commonly exhibited during wet season. They occupy the middle or lower canopy of these trees. Groups utilize the understory of the forest for feeding, resting, and traveling, while the upper story is used for sleeping, basking during morning and early feeding. Lesser use of upper canopy is made during the wet season. Though they have been found capable of surviving in marginal habitats studies suggest that their home range size decreases with disturbance and thus they prefer areas with least human presence.

Diet: Nilgiri langurs are primarily folivorous, with young leaves comprising as high as 44.06% of their diet, but they also feed upon fruits, nuts, flowers, buds, seeds, bark, stems, insects, and earth. A study recorded a total of at least 115 species to

comprise their diet of which 58 were trees, 6 woody shrubs, 13 non-woody herbs, 32 climbing plant, 6 parasites and epiphytes, in fact they forage upon the largest number of plant species among all primates in the Western Ghats. The key forage species changes with habitat and has been varyingly reported to be *Derris pinnata*, *Terminalia bellerica, Syzygium cumini, Tamarindus indica, Albizia lebbeck, A. amara, Dalbergia paniculata, Acacia pennata* and *Commiphora caudate* in riverine forest of low elevation and *Gomphandra coriacea, Drypetes oblongifolia, Antidesma menasu and Myristica dactyloides* in evergreen tropical high forest habitat. The food preference also changes with season and plant growth as they have been seen to forage on tender leaves of *Pterocarpus marsupium, Grewia tiliaefolia, Stereospermum sp. and Dalbergia latifolia*, leaves and leaf midribs of *Tectona grandis* and *Ficus* sp. and fruits of *Artocarpus hirsuta* and *Actinodaphne madraspatana*, during late March and early April which narrows to *Tectona grandis, Artocarpus hirsute, Actinodaphne madraspatana* and older leaves of *Pterocarpus marsupium* by mid April; during monsoon they have been observed to feed upon tender leaves of *Tectona grandis, Terminalia paniculata* and *Pterocarpus marsupium* while during winter they fed upon the fruits and flowers of these trees. Food preference also has been known to change with habitat size, when it decreases there is increased feeding on leaf as compared to fruits. They are also known to raid cultivated crops of potato, cauliflower, cardamom and garden poppies. Nilgiri langurs have been reported to prefer a low fibre and low tannin diet i.e. high digestibility is the primary food selection criteria e.g. a staple species *Gomphandra* has been found to be high in water content and therefore rich in high levels of soluble nutrients. The Nilgiri langur may consume soil to act as an antacid and stabilizing the stomach pH. This soil is sometimes collected from termite mounds. Water is obtained from eating leaves and sucking up from pools or stream.

Reproduction: A female in estrus has more pronounced and dark pink clitoris. They give birth to single offspring. Nilgiri langurs exhibit higher birth rate at two particular times in the year, suggesting seasonality in the birth season; the peak season being May-June and a subsidiary season during September – November. This seasonality could be related to food abundance during these months. Females are reported to have weak bonds with their offspring though it nurses the baby up to eleven months of age. While moving infants are carried clinging to abdomen and mother protects her baby during rains by sheltering it and providing her body heat.

Social Organization & Behaviour

Troop structure: Nilgiri langur groups have been recorded to occur mostly as unimale groups, sometimes multi- male; quite often all-male groups are observed though all-female groups occur as well but are rare, also rarely individual may live solitary. The unimale group that has one male with many females has a well-defined dominance hierarchy. The group size has been varyingly reported to range between 2 to 29. It has been found to be smaller (6-8 animals) in deciduous forest as compared to evergreen (18-20 animals). Study also suggest variation within distribution ranges since group size is small (avg 4.25 individuals) in Brahmagiri-Makut forest as against larger groups in Silent valley and Anaimalai hills (avg 5.89 and 11 animals respectively). In general Nilgiri langurs have relatively smaller harem groups and bachelor male groups as compared to Hanuman langur, red colobus and related leaf monkeys. In bisexual groups the sex ratio is skewed towards adult females and also there were more adults in a population than immature individuals as concluded in all demographic studies conducted on them. Males are forced to emigrate by dominant male of the group when they start fighting for females of the harem. No convincing reasons are attached to occasional female migration but they may do so for better access to resources when living in sub- optimal habitats.

Behaviour: Nilgiri langurs are arboreal and diurnal. They exhibit an array of behaviours associated with different activities. General activities consist of many feeding periods interspersed with resting periods. The different activities like feeding, drinking, grooming, allogrooming, playing, resting, movement, mounting, running, jumping, chasing, fighting, watching, aggression and sucking are performed by individuals within a group for different periods. During monsoons adult females spend more time in resting as compared to feeding; while male spend more time in feeding, offence, defence and grooming. Yet studies suggest certain general patterns that define the group behaviour. Like the troop moves mostly during late afternoon, it may be because at this time the group starts heading towards the sleeping area for night. Social activities like play, grooming, scratching and infant – mother association have all been found to be associated with resting periods. Grooming has been observed to occur at the end of resting periods, this along with scratching are suggested to be activities of transition period occurring at the end of rest period and before beginning of movement. Basically social grooming is a social contact behavior which like playing and scratching is prominently associated with relaxing and socializing. During a study, group's total activities comprised 34.04%, movement 21.84%, eating 32.91%, social behaviour 5.89% and self directed 5.32%. Since a hierarchy exists within the group in case of an unfriendly interaction, the

subordinate, so as to prevent the attack from the dominant, would turn its hindquarters as a signal of the dominant's status. In reaction the dominant then mounts or touches the animal.

Foraging Behaviour: A Study suggests that Nilgiri langur spend 43.65% of their time in feeding. They forage during morning and evening, though a study reports higher foraging during afternoon also. While eating, Nilgiri langur tear off the sides off the leaves such that the mid-rib is exposed which is then consumed. During a day a troupe may have four to eight feeding bouts alternating with rest periods. They eat soil by either scraping their incisors against the ground or scraping soil with hands and eating dirt ball made out of it. The younger animals have been found to accept new type of food easily as compared to adults.

Home range and Territorial Behaviour: The home range of Nilgiri langur groups range from 2.2 to 6.4 ha. There are studies indicating that home range size increases with the group size but another study differ concluding that there is no correlation between troop and territory size. The home range size also depends upon the habitat quality; it is larger when preferred food is not concentrated. Its size is also seen to change depending on the density of langur groups in the area; in area with more density of troops the home range for each is small. The core area of the home range of a group never overlaps with another group's core area even when their ranges are overlapping. Though the Nilgiri langurs have been found to be very reluctant in leaving their home ranges yet in case if the group has to leave its home range the adult male is first to move out , followed by adult females and juveniles. Males have been found to be less nervous while leaving their range as compared to females.

Nilgiri langurs are territorial which is suggested by frequent aggressive intertroop encounters. Generally, when two or more groups of primates meet, they exhibit such diverse behavioural reactions as complete fusion of groups, avoidance by bluffing, threats, fights and even killing. In case of Nilgiri langurs although males are antagonistic and defend their territories actively via displays, vocalization and chases, yet they do not get involved in physical fighting. Both the defending and challenging male would sit in a high branch and a low grunting sound is emitted by defending male while exposing his lower incisors; this is followed by whoop display. This sound is answered by the opponent in a similar fashion. Often the display also involves a quick movement of head upwards while opening and closing the mouth as if biting the air. If the opponents do not disperse after this the defending male would chase the challenger out of his territory, often the challenger chases him back. These chasing bouts are accompanied with urination and defecation by many

members of the two groups. Usually this display resolves the matter and troops move back to their respective territories. If not so, the defending male would attack the challenging troop, but any physical injury is rarely reported. These territorial encounters reportedly occur after the winter birth peak and before spring birth peak that is between January and March. These encounters typically occur in order to protect core areas, and hence avoid competition for food and other resources.

Communication: Vocal communication or vocalization in Nilgiri Langurs has a lot of significance. The different calls are used during different type of social interactions as during territorial encounters. Vocalization also plays a role in maintaining and defending hierarchy within the social orders of a group. As has been observed during female – female interactions that are augmented by long screeching and squealing, the reconciliation is also reached only when the male gives a specific call. More than 16 type of vocalization has been recognized in Nilgiri langurs, of which 5 are produced exclusively by males. The different types of reported vocalizations are pant threats (given by adult males during territorial disputes), *hiccup (*communicating nervousness or tension), *subordinate segmented sound* (communicate submissiveness or appeasement), *hollow subordinate vocalization (* intense submissive call given by adults and subadults), *squeal (* submissive call given during intense threat sequences), *screech* (most intense submissive vocalization emitted by individuals of all ages and both sexes), *grunt (*call serves to facilitate group cohesion during territorial battles, adult males will give this call when approaching females to gain social contact), *gruff bark* (emitted by adults when presented with a danger to the group), *alarm or warning call* (emitted in tense situations), *canine grind* (heard during intra- and intergroup encounters), *warble* (given by the mother to her infant), *whistle* (call uttered most frequently by individuals), *squeak* (given by infants and juveniles in situations of tension or excitement), *scream* or *wailing* (emitted by the infant who looks at the mother while vocalizing), *growl* (emitted during agonistic encounters), *roar* (a harsh vocalization heard during intergroup encounters), *chuckle(* produced by an adult female when a male slapped her) and most importantly *whoop* and an associated *hoho* calls. The whoop display in Nilgiri langur is given by resident adult male or group leader elicited by the sight of adjacent group or during inter group interactions. It is a series of one to seven whoops accompanied by body movements. The initial whoop is a series of 15-17 “hoos”, while emitting this sound the adult would rush forward and take a stance with his rump raised, arms bowed, his tail looping over his back and head and his head facing forward. After 25-30 seconds the second sound is produced as slower “hoos” preceded by a series of Hah-ah-hah-ah, then after 20-60 seconds a third whoop is given that is a series of four slow “hoos”, followed by an additional series of four slow “hoos” with an occasional kak or haha sound interspersed in between. The whoops are produced more in morning as compared to afternoon and more frequently on cloudy days.

Olfactory and visual communications are also known in Nilgiri langurs. The former consists of mouth sniffing during feeding. The later consists of an array of expression that include *look threat* (to communicate a mild threat) *stare threat* (communicate stronger threat), *head bob* (communicate threat and is an intensification of *stare threat), open mouth threat* (display will often precede a more intense threat gesture), *chase* (threat gesture performed by adults, subadults, juveniles, and infants of both sexes), *biting air* (an intensification of *open mouth threat), look away (*done in response to *look threat* or *stare threat), head shaking* (submissive gesture done in response to an intense threat) *grin* (serves to communicate threat on the part of the sender), *yawn* (to indicate a state of weariness), *gamboling* (serves to communicate a playful mood) *play invitation* (done by subadults, juveniles, and infants of both sexes), *present* (as discussed earlier, is a function to prevent the attack from a more dominant individual), *rear end flirtation* (also given by a subordinate individual to a more dominant one), *freezing* (display is a subordinate gesture), *displacement* (communicates submission), *lunge in place* (an intense dominant gesture seen during intra-group and inter-group agonistic situations), *genital inspection (*either a dominance-subordinance act or greeting behavior), *standing over, approach towards and outstretched hand* (signals to the infant that they can cling to the mother).

Tactile communication is established by biting, its exaggerated form mouthing, mounting, face licking, touching, embracing, slapping and patting.

Distribution

The Nilgiri Langur is endemic to the southern portion of the Western Ghats in south India. The species ranges from Kanyakumari to Coorg hills, Srimangla range of Brahmagiri – Makut protected area forming its northernmost limit in the Western Ghats. Its range states thus include Kerala, Karnataka and Western Tamil Nadu. They are found between 8˚ N and 12˚ N latitude and 76˚E and 77.5˚E longitude. Recent status surveys suggest that the species is currently distributed in only 16% of their geographical distribution and 50% of this total area falls outside the protected area network.

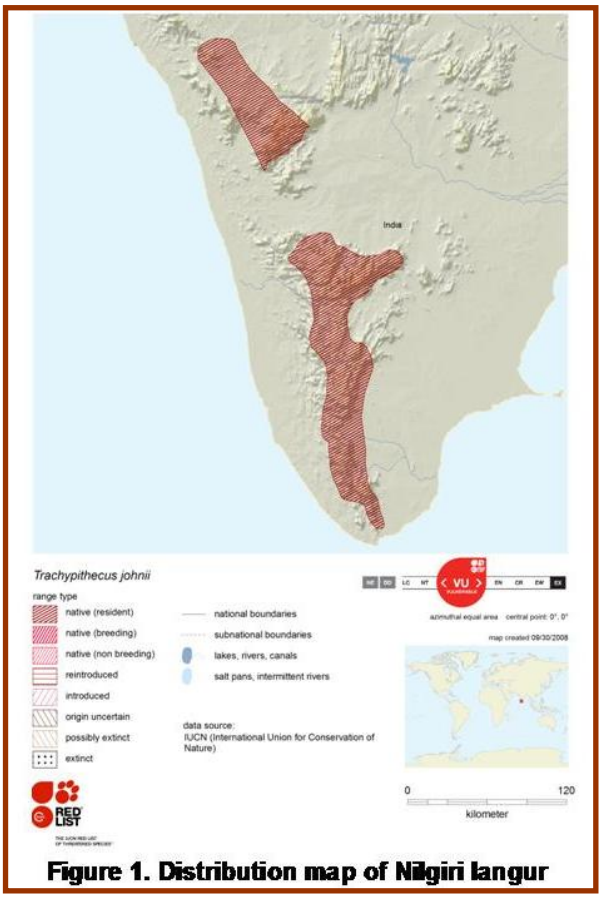

Figure 1. Distribution map of Nilgiri langur

Threats

Though they account for only 15% of living primate species, colobines are on the 2004-2006 list of the world's 25 most endangered primates. The Nilgiri langur population has been estimated from 5000-15000. The main threat to the wild population are habitat destruction, loss and fragmentation (for timber production, teak plantation and fuel wood and other NTFP collection) and poaching for pelt, flesh, blood, organs to produce medicines and aphrodisiacs. A loss in habitat would lead to a smaller population that would become susceptible to extinction by stochastic events. Also a very fragmented habitat may lead to isolation of groups within the population that may lead to increased inbreeding and resultant genetic drift and loss of hybrid vigour. The population is also threatened by large scale developmental projects like dams and hydro-electric power projects that are not only causing habitat loss but also causing deaths due to electrocution by the high tension wires running between their sites.

Status

The species has been listed under Appendix II of CITES. They are also protected under the Schedule I, Part I of Indian Wildlife Protection Act, 1972 and are listed as Vulnerable C2a (i) under IUCN Red data list. The key to conservation of this species lies in reducing poaching, protecting their habitat and education of masses.

Table 1 Status in captivity

Sl. No.	Zoo Name	Males	Females	Unknown	Total
1.	Nehru Zoological Park, Hyderabad	3	1		4
2.	Thiruvananthapuram (trivandrum) Zoo, Thiruvananthapuram, Kerala	1	1		2
3.	Arignar Anna Zoological Park, Chennai	6	11	2	19
4.	Sri Chamarajendra Zoological Garden, Mysore	1	4		5
	Total	**11**	**17**	**2**	**30**

Further demographic and genetic analysis of the data was not carried out as the data available has poor information on the pedigree records and dates of entry and exit of specimens. Moreover the population size is limited in captivity

Table 1 –Listing of Living Nilgiri Langur in Captivity in Indian Zoos

Sl. No.	House Name Local Identifiers Transponder #	National Studbook Number	Sex	Sire	Dam	Birth Date	Location	Date	Event	Remarks
Nehru Zoological Park, Hyderabad, Andhra Pradesh										
1.	GAINDA	00006	M	Unk	Unk	17 Jun 1987	KANPUR HYDERABAD	17 Jun 1987 1 Mar 2003	Birth Transfer	
2.	RAJAN	00007	M	Unk	Unk	16 Feb 1990	HYDERABAD	16 Feb 1990	Birth	
3.	SEKAR	00018	M	Unk	Unk	31 Mar 2000	MADRAS HYDERABAD	31 Mar 2000 28 Sep 2007	Birth Transfer	
4.	NAGA BHUSH 0006B72EE7	00022	F	00012	00010	12 Dec 2002	MADRAS HYDERABAD	12 Dec 2002 28 Sep 2007	Birth Transfer	
3.1.0 (4)										
Thiruvananthapuram (trivandrum) Zoo, Thiruvananthapuram C, Kerala										
1.	REMYA	00021	F	WILD	WILD	???	India Thiruvananthapuram	16 Aug 2002 16 Aug 2002	Capture Transfer	
2.	REGHU	00027	M	WILD	WILD	???	India Thiruvananthapuram	24 Sep 2004 24 Sep 2004	Capture Transfer	
1.1.0 (2)										
Sri Chamarajendra Zoo (mysore Zoo), Mysore 570 010, Karnataka										
1.	JANAVI1 0006B73849	00017	F	00036	00029	18 Apr 1999	MYSORE	18 Apr 1999	Birth	
2.	JEEVITHA 0006B73849	00028	F	00031	00030	4 Jun 2005	MYSORE	4 Jun 2005	Birth	
3.	SONIYA	00029	F	WILD	WILD	???	India MYSORE	????	Capture Transfer	
4.	MENAKA	00030	F	WILD	WILD	???	India MYSORE	????	Capture Transfer	
5.	SANJAY	00031	M	WILD	WILD	???	India MYSORE	????	Capture Transfer	
1.4.0 (5)										

Sl. No.	House Name Local Identifiers Transponder #	National Studbook Number	Sex	Sire	Dam	Birth Date	Location	Date	Event	Remarks
Arignar Anna Zool Park Chennai, Chennai, Tamil Nadu										
1.	SUMATHRA	0009	F	WILD	WILD	~ 1990	TAMILNADU MADRAS	~24 Nov 1991 24 Nov 1991	Capture Transfer	
2.	KAIKEI	00010	F	WILD	WILD	~ 1990	TAMILNADU MADRAS	~24 Nov 1991 24 Nov 1991	Capture Transfer	
3.	KANNAN	00012	M	Unk	Unk	17 May 1996	MADRAS	17 May 1996	Birth	
4.	KAVITHA	00013	F	Unk	00010	15 Jul 1996	MADRAS	15 Jul 1996	Birth	
5.	KANNAHI	00014	F	Unk	00009	15 Jul 1996	MADRAS	15 Jul 1996	Birth	
6.	SELVI	00015	F	Unk	00009	13 Mar 1997	MADRAS	13 Mar 1997	Birth	
7.	GUGAN	00016	M	Unk	00010	21 Nov 1997	MADRAS	21 Nov 1997	Birth	
8.	RAVI	00019	M	12	00009	2 Mar 2002	MADRAS	2 Mar 2002	Birth	
9.	AAZP35 0006118EB2	00020	M	WILD	WILD	~ 2002	INDIA GUINDY MADRAS	??? ??? 27 Jul 2009	Capture Transfer Transfer	
10.	AAZP 25	00023	F	00012	00013	4 Jan 2003	MADRAS	4 Jan 2003	Birth	
11.	AAZP 26	00024	M	Unk	Unk	11 Feb 2004	MADRAS	11 Feb 2004	Birth	
12.	AAZP 27	00025	F	Unk	Unk	11 Mar 2004	MADRAS	11 Mar 2004	Birth	
13	AAZP 28	00026	F	Unk	Unk	13 Jul 2004	MADRAS	13 Jul 2004	Birth	
14.	AAZP34	00036	M	WILD	WILD	~ 2006	INDIA MADRAS	~18 Jul 2009 18 Jul 2009	Capture Transfer	
15.	AAZP 29	00032	F	Unk	Unk	10 Mar 2007	MADRAS	10 Mar 2007	Birth	
16.	AAZP 30	00033	F	Unk	Unk	5 Apr 2007	MADRAS	5 Apr 2007	Birth	
17.	AAZP32	00034	Unk	Unk	Unk	5 Feb 2009	MADRAS	5 Feb 2009	Birth	
18.	AAZP33	00035	Unk	Unk	Unk	5 Jun 2009	MADRAS	5 Jun 2009	Birth	
19.	AAZP31	00037	F	Unk	Unk	25 Dec 2009	MADRAS	25 Dec 2009	Birth	
6.11.2 (19)										
TOTALS: 11.17.2 (30) 4 Institutions										

Table 2 –Historic Listing of Nilgiri Langur in Captivity in Indian Zoos

Sl. No.	House Name Local Identifiers Transponder #	National Studbook Number	Sex	Sire	Dam	Birth Date	Location	Date	Event	Remarks
Nehru Zoological Park, Hyderabad, Andhra Pradesh										
1.	Unk1	00001	M	Unk	Unk	15 Jun 1986	MADRAS ASSAM ASSAM	15 Jun 1986 ??? 1 May 1987	Birth Transfer Death	
2.	Unk2	00002	M	Unk	Unk	15 Jun 1986	MADRAS ASSAM ASSAM	15 Jun 1986 ??? 1 Aug 1990	Birth Transfer Death	
3.	Unk3	00003	F	Unk	Unk	15 Jun 1986	MADRAS ASSAM ASSAM	15 Jun 1986 ??? 29 Dec 1990	Birth Transfer Death	
4.	Unk4	00004	F	Unk	Unk	15 Jun 1986	MADRAS ASSAM ASSAM	15 Jun 1986 ??? 14 May 1990	Birth Transfer Death	
5.	Unk5	00005	F	Unk	Unk	15 Jun 1986	ASSAM ASSAM	15 Jun 1986 12 Feb 1989	Birth Death	
6.	GAINDA	00006	M	Unk	Unk	17 Jun 1987	KANPUR HYDERABAD	17 Jun 1987 1 Mar 2003	Birth Transfer	
7.	RAJAN	00007	M	Unk	Unk	16 Feb 1990	HYDERABAD	16 Feb 1990	Birth	
8.	Unk6	00008	M	Unk	Unk	7 May 1990	ASSAM ASSAM	7 May 1990 9 Dec 1990	Birth Death	
9.	SUMATHRA	00009	F	WILD	WILD	~ 1990	TAMILNADU MADRAS	~24 Nov 1991 24 Nov 1991	Capture Transfer	
10.	KAIKEI	00010	F	WILD	WILD	~ 1990	TAMILNADU MADRAS	~24 Nov 1991 24 Nov 1991	Capture Transfer	
11.	Unk7	00011	M	Unk	Unk	24 Sep 1990	ASSAM ASSAM	24 Sep 1990 24 Sep 1990	Birth Death	
12.	KANNAN	00012	M	Unk	Unk	17 May 1996	MADRAS	17 May 1996	Birth	
13.	KAVITHA	00013	F	Unk	00010	15 Jul 1996	MADRAS	15 Jul 1996	Birth	
14.	KANNAHI	00014	F	Unk	00009	15 Jul 1996	MADRAS	15 Jul 1996	Birth	

Sl. No.	House Name Local Identifiers Transponder #	National Studbook Number	Sex	Sire	Dam	Birth Date	Location	Date	Event	Remarks
15.	SELVI	00015	F	Unk	00009	13 Mar 1997	MADRAS	13 Mar 1997	Birth	
16.	GUGAN	00016	M	Unk	00010	21 Nov 1997	MADRAS	21 Nov 1997	Birth	
17.	JANAVI1 0006B73849	00017	F	00036	00029	18 Apr 1999	MYSORE	18 Apr 1999	Birth	
18.	SEKAR	00018	M	Unk	Unk	31 Mar 2000	MADRAS HYDERABAD	31 Mar 2000 28 Sep 2007	Birth Transfer	
19.	RAVI	00019	M	00012	00009	2 Mar 2002	MADRAS	2 Mar 2002	Birth	
20.	AAZP35 0006118EB2	00020	M	WILD	WILD	~ 2002	INDIA GUINDY MADRAS	??? ??? 27 Jul 2009	Capture Transfer Transfer	
21	REMYA	00021	F	WILD	WILD	???	India Thiruvananthapuram	16 Aug 2002 16 Aug 2002	Capture Transfer	
22.	NAGA BHUSH 0006B72EE7	00022	F	00012	00010	12 Dec 2002	MADRAS HYDERABAD	12 Dec 2002 28 Sep 2007	Birth Transfer	
23.	AAZP 25	00023	F	00012	00013	4 Jan 2003	MADRAS	4 Jan 2003	Birth	
24.	AAZP 26	00024	M	Unk	Unk	11 Feb 2004	MADRAS	11 Feb 2004	Birth	
25.	AAZP 27	00025	F	Unk	Unk	11 Mar 2004	MADRAS	11 Mar 2004	Birth	
26.	AAZP 28	00026	F	Unk	Unk	13 Jul 2004	MADRAS	13 Jul 2004	Birth	
27.	REGHU	00027	M	WILD	WILD	???	India Thiruvananthapuram	24 Sep 2004 24 Sep 2004	Capture Transfer	
28.	JEEVITHA 0006B73849	00028	F	00031	00030	4 Jun 2005	MYSORE	4 Jun 2005	Birth	
29.	SONIYA	00029	F	WILD	WILD	???	India MYSORE	????	Capture Transfer	
30.	MENAKA	00030	F	WILD	WILD	???	India MYSORE	????	Capture Transfer	
31.	SANJAY	00031	M	WILD	WILD	???	India MYSORE	????	Capture Transfer	
32.	AAZP 29	00032	F	Unk	Unk	10 Mar 2007	MADRAS	10 Mar 2007	Birth	
33	AAZP 30	00033	F	Unk	Unk	5 Apr 2007	MADRAS	5 Apr 2007	Birth	
34	AAZP32	00034	Unk	Unk	Unk	5 Feb 2009	MADRAS	5 Feb 2009	Birth	

Sl. No.	House Name Local Identifiers Transponder #	National Studbook Number	Sex	Sire	Dam	Birth Date	Location	Date	Event	Remarks
35	AAZP33	00035	Unk	Unk	Unk	5 Jun 2009	MADRAS	5 Jun 2009	Birth	
36.	AAZP34	00036	M	WILD	WILD	~ 2006	INDIA MADRAS	~18 Jul 2009 18 Jul 2009	Capture Transfer	
37.	AAZP31	00037	F	Unk	Unk	25 Dec 2009	MADRAS	25 Dec 2009	Birth	

37 (15.19.3)

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